Nature Conservation 50: 227–264 (2022)
doi: 10.3897/natureconservation.50.85108
https://natureconservation.pensoft.net

RESEARCH ARTICLE

A peer-reviewed open-access journal
Nature Conservation
Launched to accelerate biodiversity conservation

The unregulated nature of the commercial captive predator industry in South Africa: Insights gained using the PAIA process

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Academic editor: Klaus Henle | Received 14 April 2022 | Accepted 18 November 2022 | Published 5 December 2022

https://zoobank.org/2DA49427-FE8B-4391-9B2E-9DE3A00C0016

Citation: de Waal L, Jakins C, Klarmann SE, Green J, D'Cruze N (2022) The unregulated nature of the commercial captive predator industry in South Africa: Insights gained using the PAIA process. Nature Conservation 50: 227–264. https://doi.org/10.3897/natureconservation.50.85108

Abstract

South Africa has allowed the commercial captive breeding and trade of African lions (*Panthera leo*) and other large felids since the 1990s. However, publicly available information to quantify the extent and nature of this industry, as well as insight into the diversity of relevant provincial nature conservation statutes, are lacking. Our study reviewed the provincial regulations that govern the captive predator industry in South Africa and used the Promotion of Access to Information Act (PAIA) to obtain records held by the nine provincial departments regulating the captive breeding, keeping, and trade of large felids. The information obtained through the PAIA process was highly inconsistent across provincial borders, demonstrated the absence of standard operating procedures, and highlighted the convoluted and decentralised permitting systems. The research postulates that varying and sometimes conflicting provincial regulations can lead to further exploitation of legal loopholes and unregulated growth of the industry. In addition, provincial resources are inadequate for authorities to carry out their fundamental mandates of nature conservation. Although the PAIA process was challenging, the information received provided valuable insight into the unregulated nature of this industry and demonstrated major concerns in addressing the necessary challenges associated with animal welfare. Furthermore, with more than half of the PAIA requests either refused, rejected or ignored, the true magnitude and nature of South Africa's commercial captive predator industry cannot be accurately quantified. The evidence from this study supports the notion of transitioning away from the commercial captive predator breeding industry, as intended by the South African government.

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Keywords
African lion, commercial captive breeding, conservation, lion breeding, *Panthera leo*

Introduction

South Africa is one of the few countries in Africa that allows the intensive captive breeding and keeping of African lions (*Panthera leo*) and other large felids for commercial purposes. Despite its legal status, the commercial captive predator industry (hereafter referred to as the industry) has been a contentious issue for many years that has raised animal welfare concerns, among others, and has been identified as a threat to South Africa's reputation as a leader in wildlife conservation and ecotourism (SA Predator Breeders Association and Others v Minister of Environmental Affairs and Tourism 2009; Harvey 2020; High-Level Panel Report 2020). In June 2021, the Department of Forestry, Fisheries and the Environment (DFFE) gazetted a draft Policy Position on the conservation and ecologically sustainable use of elephant, lion, leopard and rhinoceros (hereafter referred to as the draft Policy Position), which was the result of a year-long High-Level Panel (HLP) review and subsequent report on the industry (High-Level Panel Report 2020) (see Appendix 1 for full list of abbreviations). The draft Policy Position intends to immediately halt the domestication and exploitation of lions, and to ultimately close all captive lion facilities in South Africa (Department of Forestry, Fisheries and the Environment 2021). Steps have been taken to form a Ministerial Task Team who will need to identify voluntary exit options and pathways from the captive lion industry and to oversee their implementation and monitoring (Department of Forestry, Fisheries and the Environment 2022). However, neither has a time frame been set nor has legislation been amended so far, and therefore the industry is still legally allowed to continue its operations.

History of the commercial captive predator industry in South Africa

The commercial captive breeding and trade of predators in South Africa has been allowed to grow since the 1990s. In 2005, fewer than 2,500 lions were kept in 45–50 facilities, which more than doubled by 2013 to approximately 6,200 lions in 149 facilities (Williams et al. 2015). The emergence of this industry was in response to a surge in demand for lion products (Williams and 't Sas-Rolfes 2019), initially to supply captive-bred lions for the "canned" or captive trophy hunting industry (Schroeder 2018), and since 2008 also to export lion skeletons to feed the traditional medicine market in Southeast Asia (Williams et al. 2017). This shift was most likely the inadvertent result of international conservation measures to protect tigers (*Panthera tigris*) that led to the reduced availability of tiger bones and the subsequent substitution with lion bones (Williams et al. 2015). At the same time, a significant number of non-consumptive, tourism-based activities evolved, such as interactive tourism and volun-tourism experiences for paying tourists (Schroeder 2018; Coals et al. 2019), creating

a multi-sectoral commodity chain for lions (Green et al. 2021) that contributes an estimated ZAR500 million (US$42 million) annually to South Africa's economy (van der Merwe et al. 2017). It is important to note, however, that these figures have been disputed (e.g., Harvey 2020) as they do not take into account the quantifiable opportunity costs associated with the continuation of the industry.

Although current and accurate information on the scale of the industry is lacking (Harvey 2020), Minister Creecy of DFFE stated in August 2019 that there were 7,979 lions in captivity in South Africa in 366 facilities registered in terms of national legislation (South African National Assembly Question No. 410 (NW1382E) 2019). However, the diversity and quantities of other indigenous and exotic felids, such as cheetah (*Acinonyx jubatus*), leopard (*Panthera pardus*), caracal (*Caracal caracal*), serval (*Leptailurus serval*), tiger, jaguar (*Panthera onca*), puma (*Puma concolor*), and liger (captive born hybrid between a male lion and female tiger), in this industry is largely unknown (Harkin and Locke 2022).

Legislation governing the commercial captive predator industry

The industry is legal in South Africa under a significant number of national and provincial statutes and regulations, as well as international trade agreements. The management of indigenous captive wildlife falls under the mandate of DFFE and provincial nature conservation departments; whereas the protection of captive animals, and wild felids in particular, is the mandate of the Department of Agriculture, Land Reform and Rural Development (DALRRD) and concurrent national and provincial jurisdiction (Centre for Environmental Rights and Endangered Wildlife Trust 2018). The HLP report identified the lack of coordination and harmonisation of legislation and policy resulting from shared competencies, as prescribed in schedules 4 and 5 of the Constitution (referred to as 9+1+1, namely 9 provinces, 1 national DFFE, and 1 national DALRRD), as a key challenge (High-Level Panel Report 2020).

The National Environmental Management: Biodiversity Act, 10 of 2004 (NEMBA), is South Africa's main biodiversity conservation statute. Under NEMBA, the Threatened or Protected Species (TOPS) Regulations, 2007, regulates, among others, the permit system, and the registration of captive breeding and hunting operations (South Africa 2007). These TOPS Regulations also provide for the prohibition of restricted activities involving listed threatened or protected species, including lion, leopard, and cheetah (South Africa 2007). Non-indigenous large felids, such as tiger and puma, are regarded as "alien species" under NEMBA; however, the possession, breeding and trade of such species is still regarded as a restricted activity under chapter 7 and therefore requires a permit (South Africa 2004). Under the TOPS Regulations, any person may apply for a possession permit, i.e., a permit for keeping a specimen or a product or derivative of a listed threatened or protected species in a person's possession, including lion, leopard, cheetah, and caracal. No permit is valid for more than 12 months, except for a standing permit which may be issued for a period of 36 months. Standing permits, as referred to in TOPS Regulation 5(2), are restricted to,

among others, veterinarians, registered captive breeding operations, registered sanctuaries or registered rehabilitation facilities, registered commercial exhibition facilities, and registered wildlife traders working with any listed threatened or protected species. According to TOPS, provincial departments responsible for the conservation of biodiversity in the province may exercise the duty of the permit issuing authority for TOPS permits. Furthermore, the applicant must be prepared to microchip each specimen of a listed threatened or protected species bred or kept at a captive facility.

The TOPS Regulations must be read in conjunction with applicable provincial legislation (South Africa 2007). All nine provinces in South Africa have provincial statutes (see Appendix 2), in addition to or instead of NEMBA and TOPS, but these are ultimately subservient to national legislation (Centre for Environmental Rights and Endangered Wildlife Trust 2018). Two provinces, namely Western Cape and Mpumalanga have still not fully implemented the TOPS Regulations and are therefore not yet compliant with TOPS (South African National Assembly Question No. 80 (NW83E) 2021). In most provinces, except for KwaZulu-Natal, Northern Cape and Western Cape, nature conservation is combined with portfolios of economic development, agriculture, and/or tourism, which divergent mandates can hinder conservation interests (Centre for Environmental Rights and Endangered Wildlife Trust 2018; Wilson 2019; High-Level Panel Report 2020). The plethora of nature conservation statutes relevant to each province and their often outdated nature (see Appendix 2) leads to major inconsistencies in the various regulatory provisions (see Appendix 3) and the overall lack of an enabling legislative environment when dealing with the industry (High-Level Panel Report 2020).

One example of such divergent provincial regulations is the captive hunting of put-and-take animals, which is prohibited under the TOPS Regulations. A put-and-take animal is defined in TOPS as "a live specimen of a captive-bred listed large predator that is released on a property irrespective of the size of the property for the purpose of hunting the animal within a period of 24 months" (South Africa 2004). However, the Supreme Court of Appeal of South Africa ruled in 2010 that lions should be excluded from the put-and-take listing (SA Predator Breeders Association and Others v Minister of Environmental Affairs and Tourism 2010), which has led to the nine provinces making non-evidence based decisions on the minimum release time for captive-bred lions, now ranging from 96 hours in the North West up to the TOPS stipulated time of 24 months in Limpopo and Northern Cape (see Appendix 3). Furthermore, the capacity of the provincial authorities has been questioned in terms of monitoring all aspects of the industry (Williams et al. 2015). The inconsistencies in provincial legislation, the absence of a national permit database and the lack of transparency and co-ordination between the provinces, has left legal loopholes that can have detrimental impacts on our captive wildlife (Wilson 2019), thereby presenting compliance challenges (Williams et al. 2015).

International trade agreements relating to the lion bone trade

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) governs the international trade in wildlife with the aim to ensure that such trade does not threaten the survival of the species. Under current CITES regulations,

the African lion is listed in appendix II and is therefore the only large felid that may be legally traded internationally for commercial purposes (Williams et al. 2017). Despite being a highly contested issue, an annual quota for the bone trade from South Africa's captive lion population was agreed at the 2016 CITES Conference of the Parties (CoP17) through an annotation to appendix II (Williams et al. 2017). Whereas a zero annual export quota remains for wild lions, "annual export quotas for trade in bones, bone pieces, bone products, claws, skeletons, skulls and teeth for commercial purposes, derived from captive breeding operations in South Africa, will be established and communicated annually to the CITES Secretariat" (Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) 2017).

Prior to the establishment of a CITES lion bone export quota, the legal trade in lion bones to the international market began in 2008 with 50–60 skeletons, increasing to 1,771 skeletons in 2016 (Williams et al. 2017; Williams et al. 2021) totalling in excess of 6,000 skeletons by 2017 (Bauer et al. 2018). Following CoP17, DFFE set an annual export quota of 800 lion skeletons in 2017 and 2018. A High Court judgement in August 2019 ruled that the setting of the bone quota in 2017 and 2018 was "unlawful and constitutionally invalid" and that consideration should have been given to welfare issues relating to lions in captivity when determining such quota (National Council of the Society for Prevention of Cruelty to Animals v Minister of Environmental Affairs and Others 2019). As such, DFFE was not able to set the 2019 and onwards CITES lion bone export quotas and its future determination process was deferred due to deliberations within the HLP (South African National Assembly Question No. 1994 (NW2555E) 2020).

Promotion of Access to Information Act (PAIA)

Although little information pertaining to the industry is publicly available, it is possible to obtain data through legal channels, such as the Promotion of Access to Information Act, 2 of 2000 (PAIA) (South Africa 2000). The PAIA came into effect as a means of promoting democratic participation and transparency between South African citizens and private and public bodies by ensuring public access to information (Ngoepe 2008; Dominy 2017; Nkwe and Ngoepe 2021). However, numerous studies have shown that implementation of the PAIA has been limited in terms of its uptake by citizens and the capacity of officials to implement the act consistently and accurately. Approximately 40% of requests for information are ignored by officials (The Archival Platform 2015), which may be the result of insufficient record keeping and support within government organisations (Nkwe and Ngoepe 2021), poor staff capacity, a lack of designated staff trained as information officers, and/or staff intentionally avoiding requests (Darch and Underwood 2005). It has been argued that without effective record management, access to information cannot be realised to its full potential (Ngoepe 2008).

Aims of the study

The purpose of this research was to glean valuable insights into the extent and nature of the commercial captive predator industry in South Africa. We also reviewed the efficiency

and compliance of the regulatory administration at provincial level using permit information and other related data pertaining to the captive breeding, keeping, and trade of large felids in South Africa, specifically lion, cheetah, leopard, and tiger. The PAIA process (see Appendix 4) was utilised to gain access to records kept by the various provincial departments governing environmental matters. This process should be an effective tool to obtain such information and to both quantify and qualify the extent and nature of this industry, however it has previously been criticised as inadequate and inefficient.

Methods

Promotion of Access to Information Act data collection

Permit data was obtained via PAIA requests submitted to all nine provincial authorities, namely Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Northern Cape, and Western Cape. As prescribed in the PAIA guide, a Form A (to request access to information held by a public body) was used to request information from the provincial permit issuing authorities (South African Human Rights Commission 2020). The requests were made in the personal capacity of one of the researchers.

A total of 72 PAIA requests were submitted to the nine provinces in South Africa (see Appendix 4 for a more in-depth PAIA process methodology and results description). Eight individual PAIA requests were submitted to each provincial issuing authority for the following information for the reporting period of 2017–2020:

1. Number of big cat breeding and/or keeping facilities and a breakdown of the number of lions, tigers, cheetahs, and other large felid species in captivity in the province;
2. Permits to breed and keep lions, tigers, cheetahs, and other large felid species in captivity;
3. Permits to transfer captive lions, tigers, cheetahs, and other large felid species within the province and/or interprovincially;
4. Permits to hunt captive-bred lions, tigers, cheetahs, and other large felid species;
5. Permits to euthanise any captive lions, tigers, cheetahs, and other large felid species;
6. Registration documents for new-born captive lions, tigers, cheetahs, and other large felid species with microchip numbers, as well as registration of deaths;
7. Inspection reports of captive large felid breeding and keeping facilities produced by the Environmental Management Inspectorate (EMI) within the province;
8. CITES export permits to export lions, tigers, cheetahs, and other large felid species, parts and derivatives internationally.

Data analysis

Document analysis was performed following Bowen (2009) to systematically review and evaluate three types of documents, namely permit documentation received;

written communication provided by provincial officials in the form of summary tables, spreadsheets, and email correspondence; and provincial legislation that governs environmental matters. Following the collection and selection of relevant documents, three researchers reviewed, assessed, and categorised the information contained within these documents before synthesising the data into spreadsheets. This enabled the data to be filtered for analysis by PAIA request type, permit type, province, and year. Our primary focus was on large felids, namely lion, cheetah, leopard, and tiger; the permits issued for the keeping and breeding of these felids in captivity; and the subsequent transport, hunting, euthanasia, and international live trade and/or trade in their body parts and derivatives. Data provided on other felids (including jaguar, caracal, serval, and wild cat) were summarised in the spreadsheets, where appropriate, but excluded from the final analysis.

Provincial legislation relevant to the keeping of large felids and other predators in captivity collected mostly through web-based searches, was tabulated in a spreadsheet to aid comparisons of the various regulations governing the industry in South Africa's nine provinces (see Appendices 2, 3). A document analysis of the EMI inspection reports obtained added valuable information on the extent to which both national and provincial regulations are implemented and enforced. Personal electronic communication with provincial officials were coded and thematically organised, and subsequently utilised to demonstrate common views and challenges expressed by officials across the nine provinces.

Descriptive statistics were used to illustrate the extent of the industry in South Africa and activities across its commodity chain (e.g., Green et al. 2021). This allowed for comparisons to be made across the nine provinces and the four-year reporting period in terms of all permit types and the number of large felids in the system. Where appropriate, provincial results have been described separately due to significant variations in provincial regulations and permit systems employed, with particular reference to the information received through the PAIA process. Furthermore, descriptive statistics were used to present a simplified timeline and account of the PAIA request process (see Appendix 4, Table A3) to demonstrate the challenges encountered in using the PAIA to gain access to information regarding the industry.

Ethical considerations

To ensure data protection and anonymity during the process of data collection, analysis, and reporting, all raw data files have been saved on password-protected computers by members of the research team only. Where any third-party personal information was provided by provincial officials, this was removed or de-identified during the data processing stage to secure anonymity. No personal information was processed or stored in the UK. All identifiable information has been excluded from reporting. All permit-related data was obtained via the legal public process according to the South African Human Rights Commission (SAHRC) and PAIA guidelines.

Results

Promotion of Access to Information Act responses

A total of eight PAIA requests were submitted to each of the nine provinces in South Africa (n = 72). Satisfactory information was received for 34 requests (47%) sent, while 24 requests (33%) were refused with reasons provided and 14 requests (20%) were ignored or rejected without justification (Fig. 1).

The South African Human Rights Commission Guide (2020) prescribes a timeframe of 30 and 180 days within which a PAIA request should reach completion, although it should be noted that there are a number of permutations from the standard response process that legally allows for additional response time. Only one province (Western Cape) completed the PAIA process in less than 30 days with no permutations (Fig. 1 and Appendix 4, Table A3).

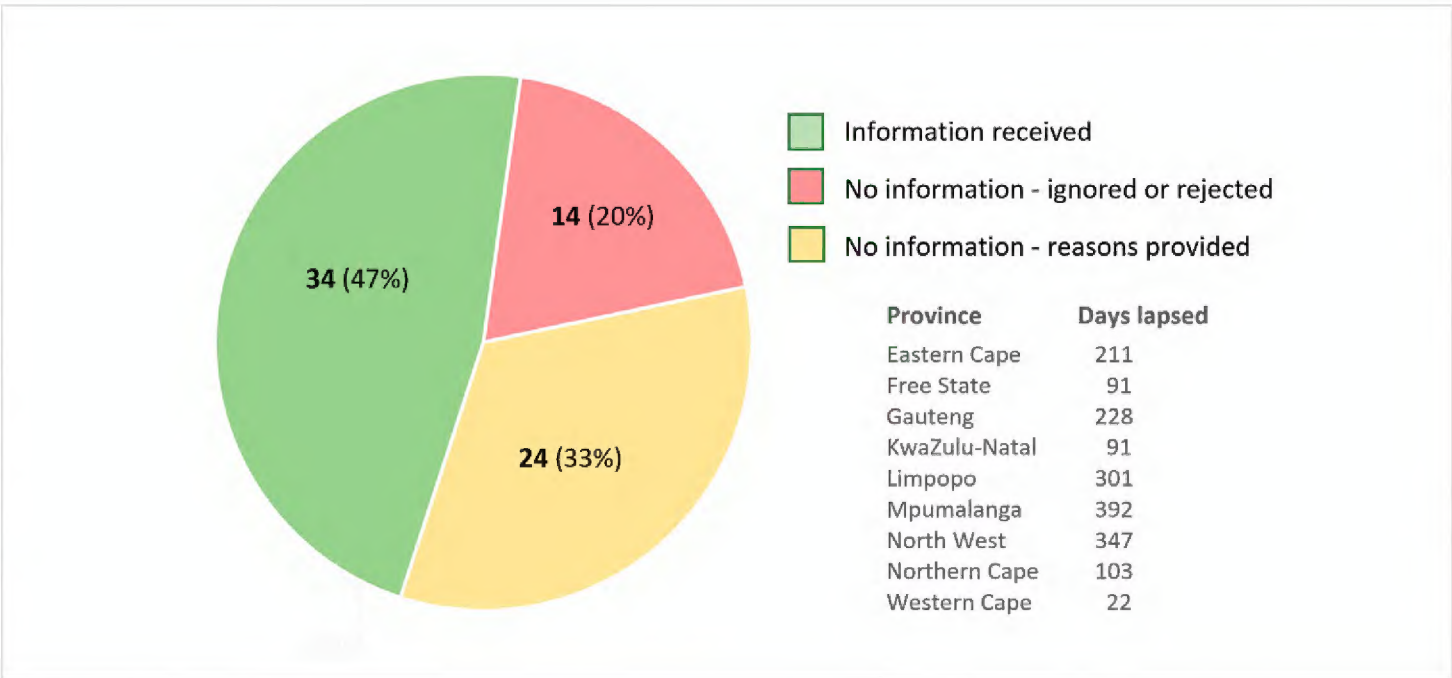

Figure 1. Number of responses to the PAIA requests (n = 72) and time lapsed in days between initial requests and date of closure.

Data analysis

The permit and other data received from the nine provincial nature conservation authorities for the period 2017–2020 was highly variable in quality and quantity (Fig. 2) and hence it is reasonable to assume that many of the datasets obtained for any of the permit types discussed below were incomplete. For example, the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) provided summary permit information for only one of the six regions in the province, namely the Amathole region (see Appendix 5, Table A4). On further enquiry, the provincial official insisted that no further permits to keep large felids in captivity were issued in any of the other regions in the province, despite clear evidence that additional captive facilities (including a registered big cat sanctuary) do exist in other regions of the province.

On the other hand, the Free State Department of Small Business Development, Tourism and Environmental Affairs (DESTEA) provided digital copies of permits issued, containing a total of 734 TOPS permits, 272 EMI inspection reports, and 228 CITES permits (see Appendix 5, Table A5). For a more in-depth analysis of the Free State permit data see also Heinrich et al. (2022). The Gauteng Department of Agriculture and Rural Development (GDARD) provided both digital and hard copies of permits issued, namely 390 TOPS permits, including 43 taxidermy and cargo export permits, and 364 CITES permits (see Appendix 5, Table A6). Ezemvelo KZN Wildlife provided summary information and detailed EMI inspection reports via email for one facility in KwaZulu-Natal (see Appendix 5, Table A7). The Limpopo Department of Economic Development, Environment and Tourism (LEDET) provided summary information via email showing that a total of 60 captivity, 224 transport, 127 hunting and 5,744 CITES export permits were issued by the province for the reporting period (see Appendix 5, Table A8). The Mpumalanga Tourism and Parks Agency (MTPA) provided electronic copies of three TOPS captivity permits and 12 EMI inspection reports for six facilities (see Appendix 5, Table A9). In 2012, MTPA implemented an electronic register in the form of Microsoft Excel documents, and it has been reported that four (67%) facilities have still not adopted the system. Summary information was provided by the North West Department of Rural, Environmental and Agricultural Development (READ) for a total

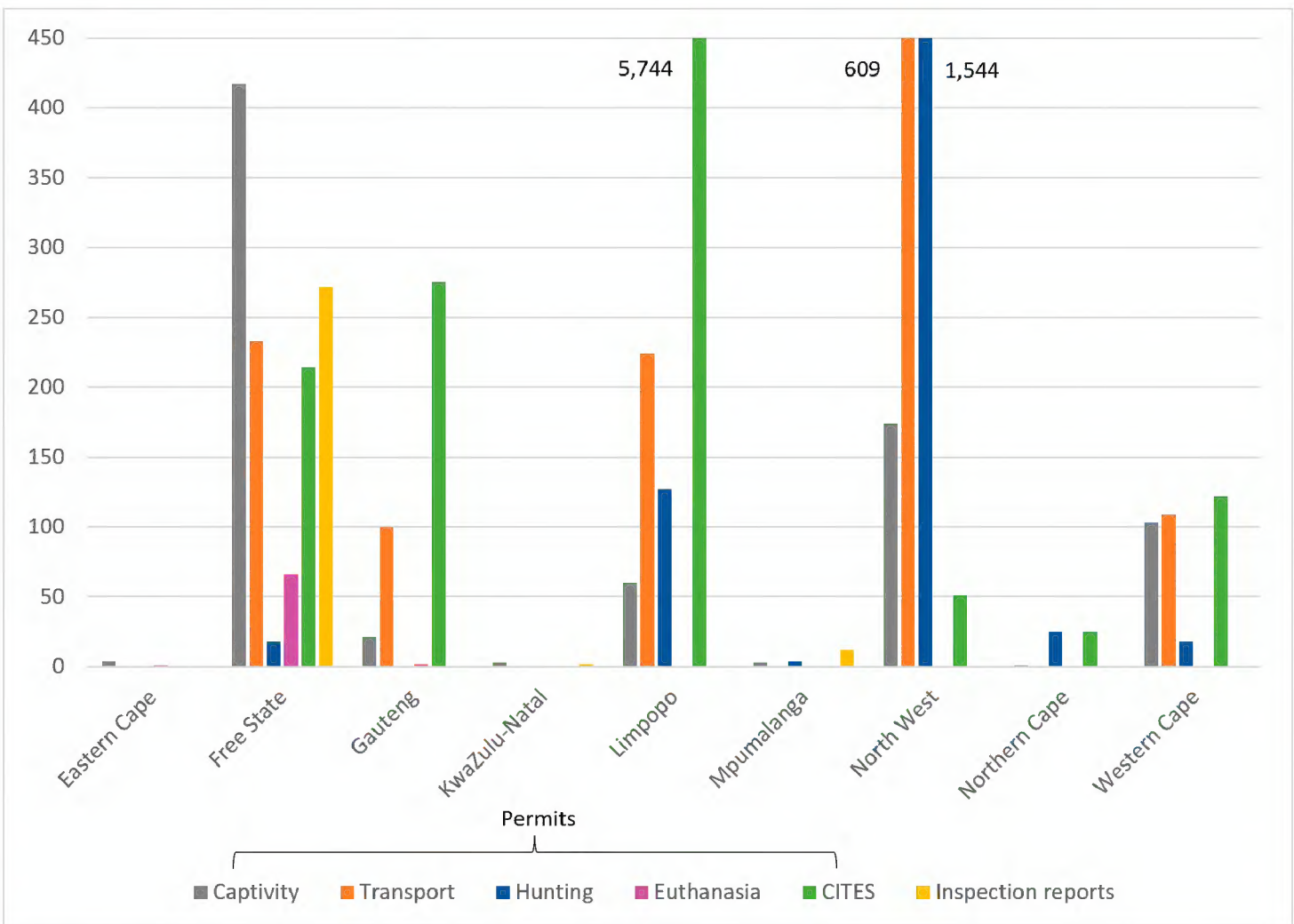

Figure 2. A provincial breakdown of the number of TOPS permits and other documents received for the period 2017–2020.

of 174 captivity, 609 transport, and 1,544 hunting permits, utilising an electronic permitting system (see Appendix 5, Table A9). The Northern Cape Department of Environment and Nature Conservation (DENC) provided digital copies of one captivity permit, 24 hunting permits (for wild, self-sustaining lions) and 33 CITES permits (see Appendix 5, Table A10). CapeNature provided detailed summary information on 103 captivity, 109 transport, and 129 CITES permits for the Western Cape province issued utilising an electronic permit system between 2017–2020 (see Appendix 5, Table A11).

A national overview is provided below by type of TOPS permit and other documents received, as well as highlighting the more pertinent issues on a provincial basis. Supplementary provincial permit summary tables are provided in Appendix 5.

TOPS captivity permits and quantity of large felids registered

According to the information received via the PAIA requests, approximately 275 unique captive predator facilities were issued with TOPS captivity permits by their respective provincial authorities to keep at least 5,508 lions, 496 cheetahs, 198 leopards, 382 tigers, and 804 other felids in South Africa in any one year between 2017–2020 (Fig. 3).

The top three provinces in terms of the number of unique captive predator facilities are the Free State (n = 123; 44.7%), North West (n = 90; 32.7%) and Western Cape (n = 26; 9.5%). Respectively, these three provinces hold 43%, 27.9% and 1.6% of the total number of large felids (n = 7,388) in South Africa (Fig. 3).

Of the 21 captivity permits received from GDARD, 15 permits (78.9%) omitted the number of large felids held at those facilities in Gauteng. In Limpopo, LEDET stated that 60 captivity permits were issued between 2017–2020 but did not provide any information on the number of large felids kept by those facilities. The Northern Cape only allows lions to be released onto extensive wildlife systems, as free roaming and self-sustaining populations, and thus no captive large felids exist in the province, except for one rehabilitation facility. CapeNature issues keeping permits in the Western Cape, but no breeding permits, as the breeding of carnivores in captivity is only supported as part of conservation breeding programmes (CapeNature 2017). See also Appendix 5 for more detailed provincial captivity permit data.

The summary information provided by READ showed that the number of unique facilities in the North West issued with TOPS captivity permits between 2017–2020 increased by 16.9%, the number of indigenous large felids (lion, cheetah, and leopard) increased by 14.2%, and the number of exotic large felids (tiger, jaguar, and puma) by 34.8% (see Appendix 5, Table A10).

Notably, of the 417 captivity permits received from DESTEA in the Free State, 65 permits (15.4%) did not list microchip numbers for the registered animals. Similarly, 19 captivity permits (90.5%) received from GDARD (Gauteng) omitted microchip numbers.

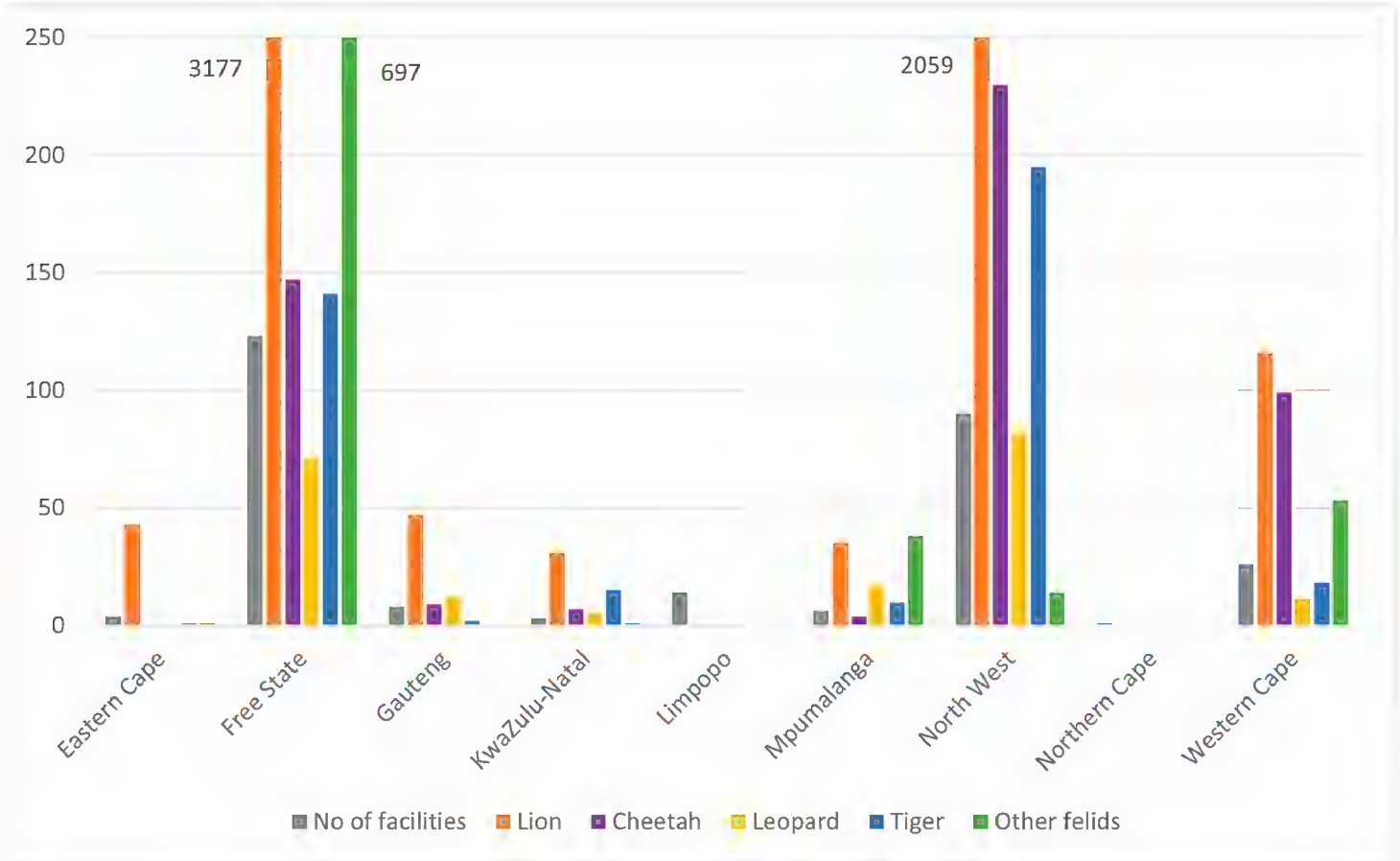

Figure 3. A provincial breakdown of the number of unique captive predator facilities issued with TOPS captivity permits and the quantities of large felids registered per province according to those permits (2017–2020).

Birth and death registration

Seven out of the nine provincial authorities provided no information on the registration of births and deaths of large felids. In KwaZulu-Natal, facilities reportedly keep birth and mortality records and inform the Ezemvelo KZN Wildlife conservation officer of death due to natural causes or ill-health as soon as such events occur (see Appendix 3). The Northern Cape has no captive large felids and hence DENC holds no information on birth and death, whereas CapeNature stated that this information does not need to be reported to them by captive wildlife facilities.

TOPS transport permits

A total of 1,275 transport permits were issued between 2017–2020, indicating a high level of movement and trade activity of large felids across South Africa, both intra- and interprovincially. The majority of permits (n = 1,066; 83.6%) were issued by the Free State, Limpopo and North West authorities, and nearly all permits (99.6%) did not specify whether the transfers involved live animals or carcasses.

The 233 transport permits received from DESTEA demonstrate a high level of activity both within the Free State and to and from other provinces whereby 1,099 felids were transferred, including 869 lions (79.1%) (Fig. 4). LEDET provided summary information stating that 224 transport permits (intraprovincial and interprovincial export) were issued in Limpopo, but no information was given regarding interprovincial import or on the quantity and species of large felids transported. READ issued a total

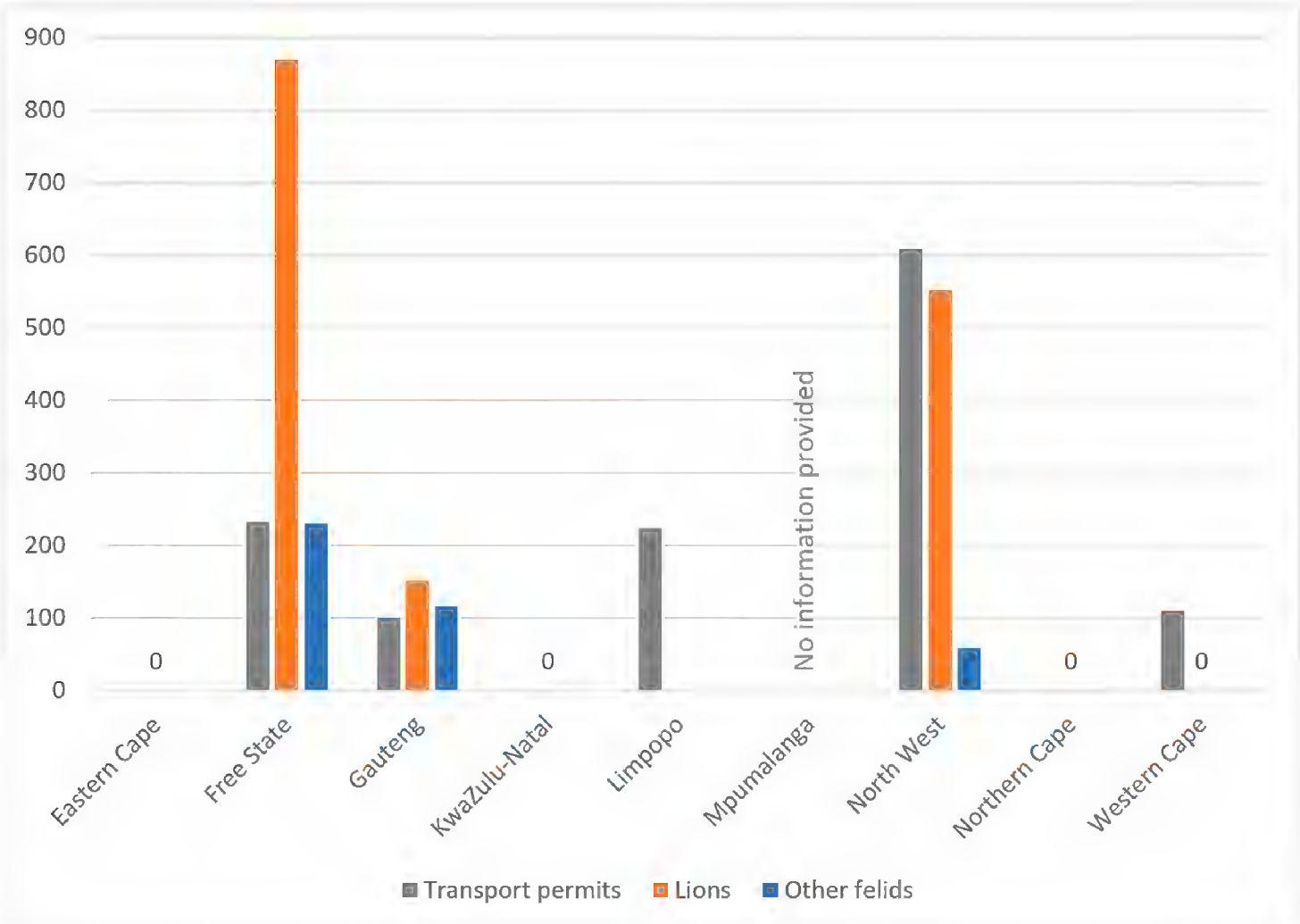

Figure 4. A provincial breakdown of the number of TOPS transport permits issued by the provincial authorities and the quantities of lions and other large felids moved intra- and interprovincially (2017–2020).

of 609 transport permits to import 237 lions (38.9%) into the North West from other provinces between 2017–2020.

Four provinces (Eastern Cape, KwaZulu-Natal, Mpumalanga and Northern Cape) either did not provide any information pertaining to transport permits or had not issued transport permits between 2017–2020 (Fig. 4). See also Appendix 5 for more detailed provincial transport permit data.

TOPS hunting permits

The hunting permit information received indicates that at least 1,707 hunting permits were issued across the country during the four-year reporting period to hunt and/or capture 1,572 captive lions in addition to numerous other indigenous captive felids, including cheetah and leopard (Fig. 5).

READ issued the vast majority of captive hunting permits (n = 1,544; 90.5%) with an average of 386 lions killed every year in the North West, however no information was provided on the number of facilities involved in captive hunting in the province. The hunting of exotic large felids, such as tiger and jaguar, is considered a restricted activity under NEMBA and requires a TOPS permit. However, READ confirmed by electronic communication that they do not issue hunting permits for exotic species,

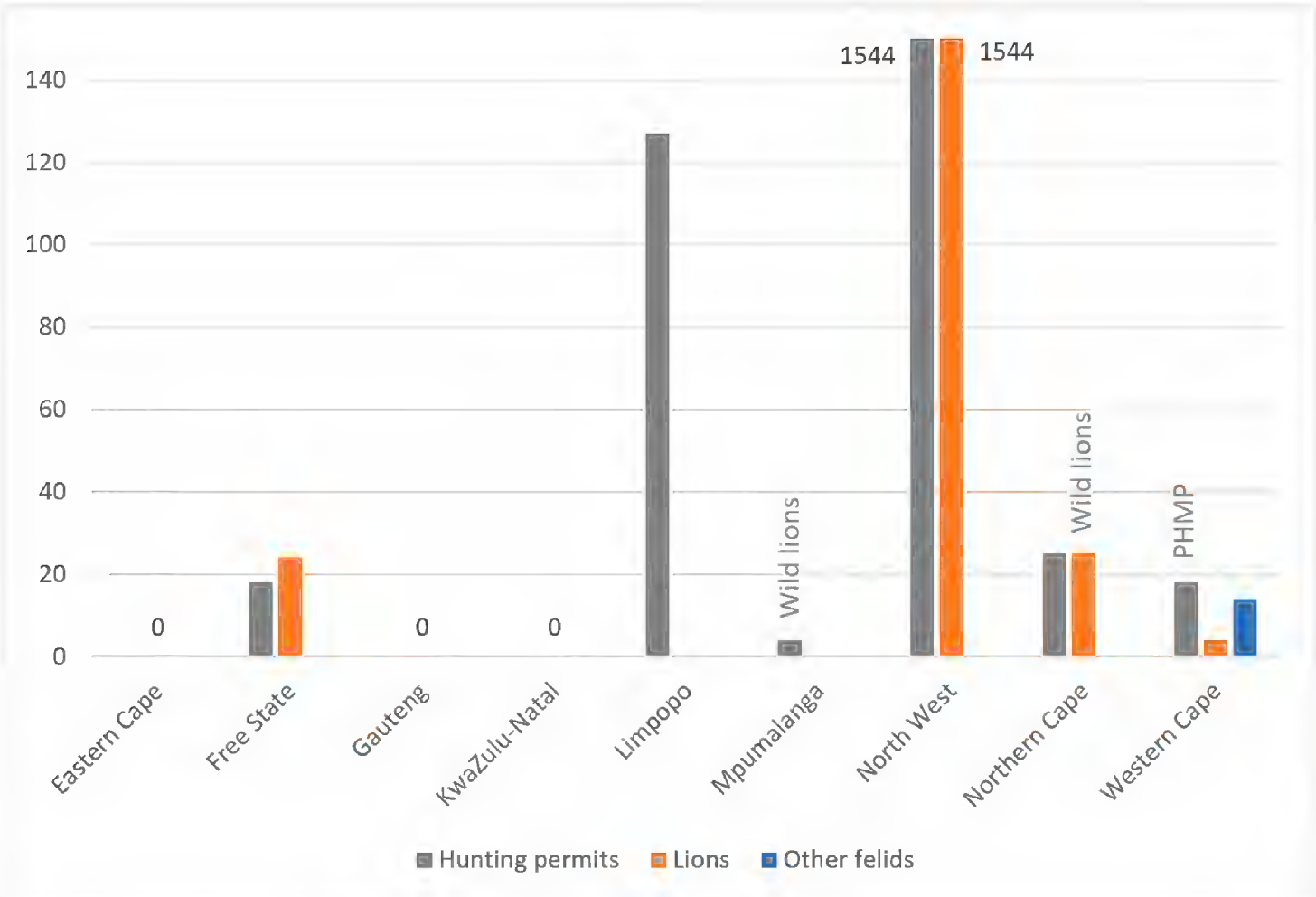

Figure 5. A provincial breakdown of the number of TOPS hunting permits issued by the provincial authorities and the quantity of lions and other large felids involved (2017–2020). All hunting permits in the Western Cape are Prohibited Hunting Method Permits (PHMP) that include the capture of predators for other purposes.

as this is not a requirement under the provincial legislation. Such hunts only require written permission from the landowner (see Appendix 3).

All 18 captive hunting permits issued by DESTEA involved only two unique facilities in the Free State, with one permit indicating unspecified special conditions, one permit for a bow hunt and the remainder for rifle hunts, where specified. LEDET only provided the number of permits issued in Limpopo and gave no information on the number of facilities involved, nor on the quantity and species of felids. Mpumalanga and the Northern Cape have no captive hunting facilities but issued permits for wild lion hunts.

The Nature and Environmental Conservation Ordinance No. 19 of 1974 applicable in the Western Cape (see Appendix 2) defines the word "hunt" in relation to any wild animal as "by any means whatsoever to hunt or search for, to kill, capture or attempt to kill or capture, or to pursue, follow or drive with intent to kill or capture, or to shoot at, poison, lie in wait for or wilfully disturb" (South Africa 1975). Therefore, all hunting permits issued by CapeNature are known as Prohibited Hunting Method Permits (PHMP) and include the capture of predators for other purposes, i.e., capture without killing. While a total of 18 PHMPs were issued by CapeNature between 2017–2020, no trophy hunting permits were issued for large felids.

The remaining three provinces (Eastern Cape, Gauteng and KwaZulu-Natal) did not issue hunting permits during the four-year reporting period (Fig. 5).

Euthanasia permits

Information regarding euthanasia permits provided by the provinces indicated that between 2017–2020 at least 69 permits were issued to euthanise 1,092 lions in three provinces, namely Eastern Cape, Free State and Gauteng (Fig. 6).

The Free State is the only province that issues bulk euthanasia permits, however, this restricted activity needs to be carried out by a veterinarian and monitored by a DESTEA official. Only 33 unique facilities were involved in this restricted activity in the province and a total of 235 lions (21.6%) were euthanised by one facility alone. Four euthanasia permits involving a total of 230 lions (21.2%) did not list microchip numbers.

The Eastern Cape and Gauteng issued one and two euthanasia permits respectively for veterinarian reasons. While no permits are required in the Western Cape to euthanise a wild animal held in captivity, euthanasia is prohibited in the North West (Williams & 't Sas-Rolfes 2019) and therefore such permits are not issued by READ. The four remaining provinces did not issue permits to euthanise captive lions during the reporting period.

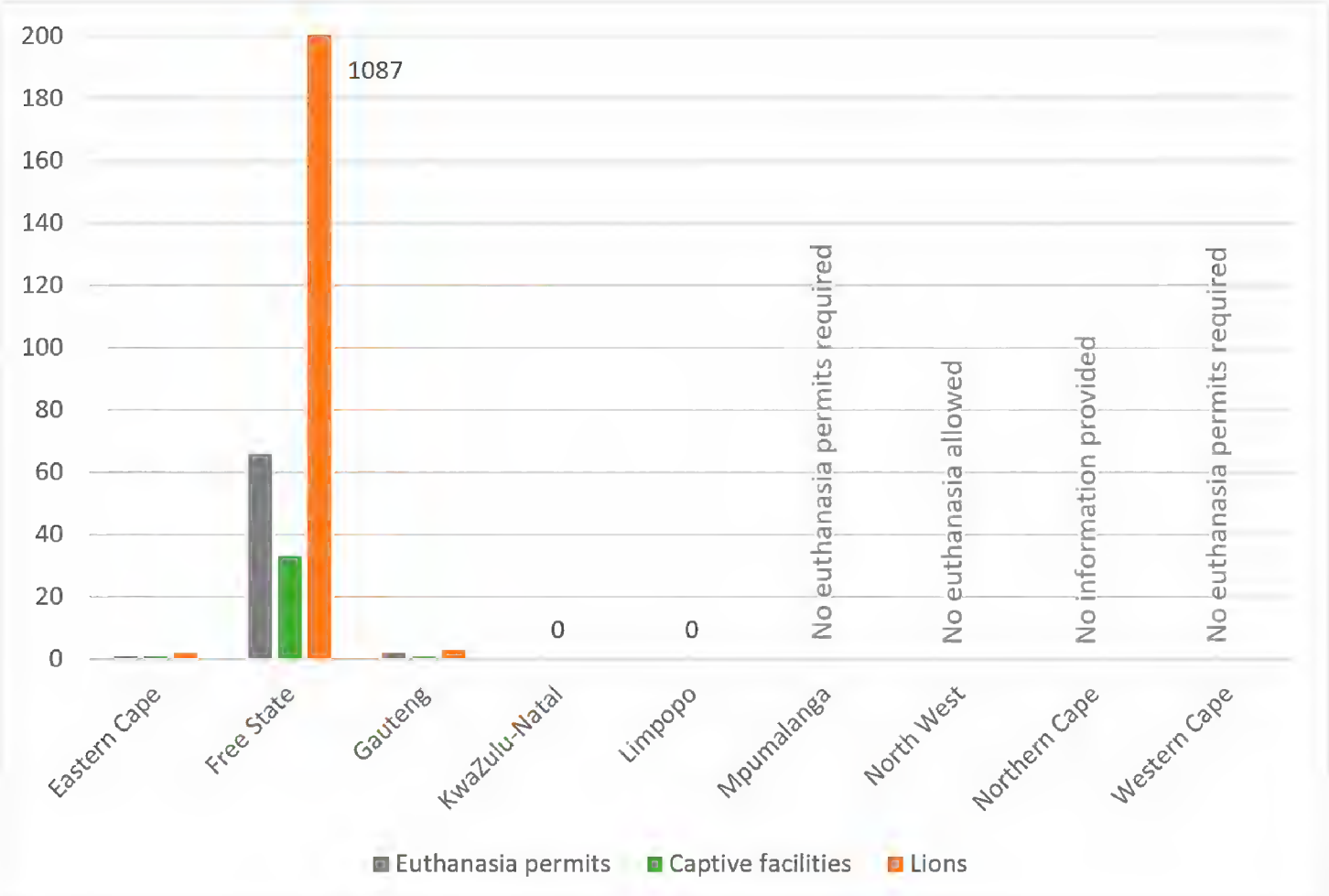

Figure 6. A provincial breakdown of the number of euthanasia permits issued by the provincial authorities to the number of unique captive facilities and the quantity of lions involved (2017–2020).

Environmental Management Inspectorate (EMI) inspection reports

Only three provinces provided digital copies of EMI inspection reports for the four-year reporting period. A total of 282 inspection reports were received, namely from

the Free State (n = 272; 96.5%), KwaZulu-Natal (n = 2; 0.7%), and Mpumalanga (n = 8; 2.8%).

Routine EMI compliance inspections were conducted in the Free State province for the purpose of new applications or renewal of captivity permits, or when new enclosures were built. Two different forms as well as generic feedback reports were used to report on such inspections (see Appendix 6). The level of detail provided by the individual EMIs across all inspection reports varied widely and fell broadly into three categories, namely reports omitting almost all required information other than owner's name, location, inspector's name, and a one-sentence recommendation (n = 101; 37.1%); reports that included an intermediate level of detail, such as number of camps, fence type, height and electrification, and number of animals (n = 125; 46.0%); and highly detailed reports, that included comprehensive descriptions, enclosure maps/layouts, and photographs (n = 46; 16.9%) (see Appendix 6). The level of detail appeared to be directly linked to individual EMI officials and was often subjective in nature.

The inspection reports for one facility for 2017 and 2018 received from Ezemvelo KZN Wildlife were highly detailed feedback reports, including areas of concern and action points. The reports noted ongoing non-compliance with some permit conditions set by the authority in 2014, including inadequate enclosures for some species, lack of veterinary care, lack of socialisation and enrichment, removal of young animals from adults, and uncontrolled breeding. In 2019, inspections for that facility were not conducted due to an ongoing case with the South African Police Service (SAPS) and in 2020 inspections were postponed due to COVID-19 lockdown restrictions.

The inspection reports from Mpumalanga Tourism and Parks Agency (MTPA) utilise standardised forms and report on record keeping and permits, fencing, disease and DNA management, condition of animals, feeding and nutrition, enclosures, veterinary, and other general aspects of supervision and safety, by using simple "yes" or "no" responses. However, the conditions to comply with the provincial norms and standards were not clarified or defined. One facility failed to implement the electronic system utilised in Mpumalanga and did not keep accurate and up-to-date registers for its animals over numerous inspections. A 2019 EMI inspection report highlighted transgressions going back to 2014, namely not keeping accurate records or having the appropriate permits in place when animals were acquired, sent to other facilities, or died. For example, at least three leopards were unaccounted for, and the deaths of multiple lions had not been recorded. Further infractions included operating as a rehabilitation centre without the correct permits and protocols in place.

A second facility in Mpumalanga inspected in 2019 also demonstrated serious transgressions that had resulted in a court order. The facility was found to illegally possess predators, had exported seven tigers to the North West without the required transport permits, had no records for the deaths of several predators, as well as inadequate fencing and welfare concerns such as a lack of water and enrichment. The implications of the above non-compliances were not noted in the EMI inspection reports, although the information officer confirmed by email that "enforcement actions are taken", although what those entailed remains unclear.

No inspection reports were received from the other six provinces, namely Eastern Cape, Gauteng, Limpopo, North West, Northern Cape, and Western Cape.

CITES export permits

Information provided on CITES permits indicates that at least 6,380 CITES export permits were issued by the provinces between 2017–2020 for a minimum of 1,366 lions and 294 other felids, including permits for trophy exports (n = 473; 7.4%), permits (n = 19; 0.3%) for 456 lion skeletons, and live export permits (n = 70; 1.1%) for 188 lions and 76 other felids (Fig. 7).

The Gauteng authority (GDARD) issued a total of 275 CITES export permits mostly for trophy export (n = 236; 85.8%), live exports (n = 33; 12%), and for lion skeletons (n = 6; 2.2%). The vast majority of permits (n = 248; 90.2%) involved lions (n = 436) and were imported by countries such as China, Indonesia, Laos, Malaysia, Thailand, and Vietnam. Live lions (n = 74) were exported from Gauteng through CITES to zoos for commercial and captive breeding purposes, including 34 lions (48.6%) to three individual zoos in China. Interestingly, 22 lion skeletons were exported to Laos in 2017 and 30 skeletons to Vietnam in 2019.

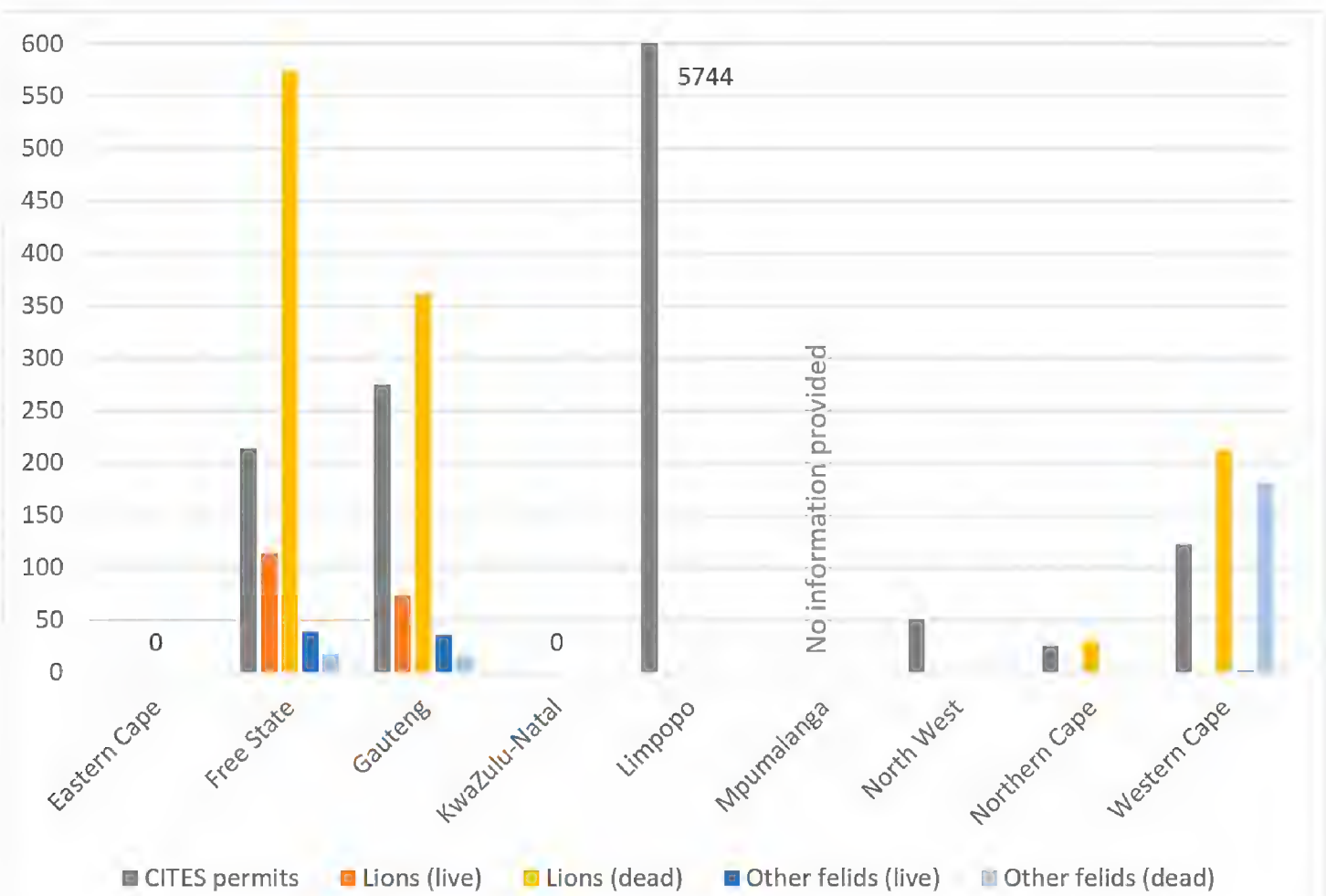

Figure 7. A provincial breakdown of the number of CITES export permits issued by the provincial authorities, the number (where specified) of live and dead lions and live and dead other felids exported from South Africa (2017–2020).

The Free State authority (DESTEA) issued 214 CITES permits to export 688 lions, including permits for live exports (n = 36; 16.8%) mostly to China, Indonesia, Malaysia, and Thailand; permits for trophy exports (n = 166; 77.6%); and for lion skeletons to Vietnam (n = 8; 3.7%).

The Northern Cape authority (DENC) issued 25 permits for the export of lion trophies originating from captive lion hunts conducted in neighbouring provinces, mostly in the North West. A total of 30 captive-bred lions and one caracal were processed and exported by taxidermists in the province.

CapeNature issued CITES export permits (n = 46; 37.7%) for trophy purposes for at least 12 captive and 34 wild animals and is the only province to issue permits (n = 13; 10.7%) for the collection of specimens from wild caracals for scientific purposes (i.e., meat, blood and serum samples, etc.).

Limpopo (n = 5,744; 90%) and North West (n = 51; 0.8%) issued CITES permits but provided no information on the purpose of the permits, the importing countries, whether permits to import and/or re-export were included, or the species or quantities of large felids involved (Fig. 7). The Eastern Cape (DEDEAT) and Ezemvelo KZN Wildlife did not issue any CITES export permits between 2017–2020 and MTPA did not provide any information on CITES permits from Mpumalanga (Fig. 7).

Four provincial authorities, DESTEA (n = 14), GDARD (n = 89), DENC (n = 8) and CapeNature (n = 129) issued CITES permits for import and/or re-export, which were excluded from the final analysis.

Discussion

The Promotion of Access to Information Act (PAIA) process

A number of challenges were encountered while utilising the PAIA process, notably difficulties in obtaining the correct contact details for the relevant information officers and maintaining long-term contact with those staff facilitating the collection of the requested information. Provincial PAIA manuals, if made available, are often not updated to reflect the current contact details of information officers and therefore contact had to be re-initiated with new officials, further delaying the research process. Non-compliance with the stipulated PAIA process was further demonstrated by information officers either not responding at all or not responding in a timely manner due to, for example, staff capacity issues, which was acknowledged by several provinces in electronic communications citing human resource constraints as a reason for delays.

One provincial authority which was particularly challenging was the Limpopo authority (LEDET), who argued that a full research proposal including purpose statements was needed to access the requested information. However, this contradicts the PAIA Act which states that a requester's right to access information is not affected by "any reasons the requester gives for requesting access; or the information officer's belief as to what

the requester's reasons are for requesting access" (South Africa 2000). Subsequently, the LEDET provincial officials argued that the requests could not be fulfilled due to sensitive third-party information. Only after the researcher insisted on their refusal being provided in writing was summary information on the requested data shared via email.

The PAIA process is designed to be an accessible and effective tool to obtain information; however, in practice, inadequacies and inefficiencies have been described by several researchers across various departments (McKinley 2003; Peekhaus 2014; van der Mey and Eyal 2014; Berliner 2017; Marais et al. 2017). Our experience of using the PAIA process to obtain information from the provincial nature conservation departments was consistent with the findings of these studies referenced above.

TOPS Permits

In 2019, at least 275 unique captive predator facilities traded with valid TOPS permits that allowed them to keep 5,508 lions and 1,880 other felids for a wide range of commercial purposes, including captive hunting, live trade, and lion bone export. However, with 53% of the PAIA requests either refused, rejected or ignored, there is no evidence that any of the datasets are complete and therefore we cannot accurately quantify the true magnitude and nature of South Africa's commercial captive predator industry. Nevertheless, the data obtained provides an indication of the most modest extent of the industry. Furthermore, the information obtained was highly inconsistent across South Africa's nine provincial departments both in terms of quantity, quality, and detail. Four provinces provided copies of actual permits (Free State, Gauteng, Mpumalanga, and Northern Cape), four provided summary tables for the requested information (Eastern Cape, Limpopo, North West, and Western Cape), and one province provided informal email responses and some report documents (KwaZulu-Natal).

TOPS captivity permits issued by the provincial authorities are generally valid for one year and are issued to register, operate, keep, and/or breed wild animal species. However, captivity permits issued by GDARD (Gauteng) are more prescriptive according to purpose, such as to register, establish and operate, keep and/or breed, and display purposes. The registration certificates and permits to establish and operate issued by GDARD are valid for three years, as are the establish and operate permits issued by MTPA (Mpumalanga). Hence, facilities issued with such permits in, for example, 2017 can still legally operate until 2020. It is therefore reasonable to assume that the number of facilities operating within these two provinces with valid permits differed from the number of permits issued per year (see Appendix 5, Tables A6, A9). Due to an incomplete dataset provided by Ezemvelo KZN Wildlife, it is not clear whether permit holders in the province are required to renew permits annually.

National and provincial regulations

As illustrated by Appendix 3, the provincial regulations relating to the keeping and breeding of large felids in captivity and any associated activities, such as captive hunting

and euthanasia of lions, varies considerably across provincial borders (Williams et al. 2015). Some provinces, such as KwaZulu-Natal, Northern Cape, and Western Cape, have more stringent regulations governing captive wildlife. For example, the Northern Cape does not issue breeding or keeping permits and thus no captive large felids exist in this province; and the Western Cape does not allow commercial captive breeding but will issue keeping permits for large felids. In KwaZulu-Natal, breeding and removal of cubs is not permitted under the Standard Terms and Conditions for the Keeping of Wild Animals in Captivity (Ezemvelo KZN Wildlife 2013). On the other end of the scale are the North West and Free State provinces, which allow the widespread commercial trade of large felids, reflected in much higher numbers of TOPS permits issued and captive large felids recorded in those provinces. The North West even showed a steady increase between 2017 and 2020 in the number of captive facilities as well as the quantity of large felids (see Appendix 5, Table A10). Furthermore, this province offers the shortest period (96 hours) between the release of a captive-bred lion and the hunt taking place, making the North West also attractive for trophy hunting operators, as is evident from the number of hunting permits issued by READ. Out of the 1,707 hunting permits issued in South Africa between 2017–2020, 90.5% (n = 1,544) were issued in the North West province (see Appendix 5, Table A10), demonstrating that the province's lenient regulations are preferred by industry players. It is interesting to note that 230 lions were hunted in the North West in 2020, despite extensive COVID-19 lockdown measures and travel restrictions from March 2020 onwards. Data on the trophy hunting of large exotic felids is extremely limited, which can be explained by provincial legislation such as in the North West (South Africa 1983), where no TOPS hunting permit is required for exotics, only written permission from the landowner where the exotic species will be hunted. In the absence of TOPS permits, no paper trail exists, despite the fact that NEMBA states that hunting of exotics is a restricted activity that requires a TOPS permit.

The lack of uniformity across provincial regulations is also apparent in terms of euthanasia of lions; i.e., the Free State, Eastern Cape, and Gauteng provinces allow euthanasia; the Western Cape and Mpumalanga indicate that euthanasia permits are not issued; and the North West stated that "no method of euthanasia is used in the province". The remaining provinces (KwaZulu-Natal, Limpopo, and Northern Cape) did not respond to our requests for euthanasia permits, and therefore the incomplete datasets received make it impossible to quantify the true extent of euthanasia of large felids across South Africa. However, we have found that the bulk of euthanasia permits were issued by DESTEA (Free State), most likely for the purpose of harvesting and exporting skeletons to feed the international lion bone trade (Williams and 't Sas-Rolfes 2019). From the CITES export permits received, we have evidence that permits were issued by GDARD to export 22 lion skeletons in 2017 to Laos and 30 skeletons in 2019 to Vietnam; and DESTEA issued permits to export 288 lion skeletons in 2018 and 103 skeletons in early 2019, all to Vietnam. Thus, CITES export permits were issued for more than 130 lion skeletons during a zero CITES lion bone export quota and despite previous reports stating that no skeletons were legally exported during 2019 (Williams et al. 2021).

It appears that only a relatively small number of industry players in the Free State are involved in lion euthanasia (33 facilities with 21.6% of the lions euthanised by just one facility) and thus in the lion bone trade, however evidence has shown that lions are freely transported between provinces. Such legal loopholes are widely exploited (Centre for Environmental Rights and Endangered Wildlife Trust 2018), as was evident from the exercise of following microchip numbers of live lions on transport permits from the North West that were subsequently found on euthanasia permits in the Free State (Heinrich et al. 2022). Furthermore, 222 lions were euthanised in the Free State in 2019 and 2020 during the zero CITES export quota period, which could indicate that those bones may have been stockpiled (Williams et al. 2021). Notably, no lion bone stockpile records are kept by the national or provincial authorities and it is therefore impossible to quantify the extent of stockpiled lion bones across South Africa.

In compliance with the TOPS Regulations, where appropriate, studbooks must be kept containing records of births and deaths, translocations and sales, as well as microchip numbers. The issuing authority must be kept informed within a three-month period at the end of each calendar year; however, it is not uncommon for these criteria to be subverted or ignored (Tricorache and Stiles 2021). Despite the fact that TOPS Annexure 2 clearly states that detailed information needs to be submitted on percentage mortalities as well as past, current, and expected annual production of offspring for captive breeding facilities, seven out of the nine provincial authorities were not able to address the PAIA requests dealing with registration of births and deaths. This makes the tracking of captive wildlife through the system from birth to death an impossible task, further compounding the lack of transparency and strict governance of this industry. The Gauteng authority (GDARD) cited their lack of capacity in terms of staff and other resources as the main constraint for not accurately tracking the quantities of captive large felids in the province. In electronic communication with the Western Cape, it was stated that CapeNature "does not have access to this information nor is it a requirement to register and/or microchip animals born in captivity upon birth or death and report it to CapeNature", which highlights the Western Cape's apparent non-compliance with the TOPS Regulations. The Limpopo authority (LEDET) refused to provide this information, stating that such "sensitive information" needs to be requested from the facilities directly.

Environmental Management Inspectorate (EMI) inspections

Based on information received from three provinces (Free State, KwaZulu-Natal and Mpumalanga), EMI inspections were of particular concern where they highlighted significant inconsistencies in reporting styles between provinces and even within provincial boundaries. It is noteworthy that EMIs undergo training in respect of compliance and enforcement with the national and provincial conservation legislation, but not on animal welfare issues, due to the lack of legislative mandate (Centre for Environmental Rights and Endangered Wildlife Trust 2019), even though they are tasked with commenting on welfare aspects in their inspection reports. It is therefore

not surprising that the welfare conditions went largely unreported or were described in vague and subjective responses. For example, both the Free State and Mpumalanga inspection reports would frequently say "yes" in response to open questions such as the availability of water, shelter or stimulation without further details on the quality and quantity thereof. Although the current legislative mandate for animal welfare lies with the National Council of Societies for the Prevention of Cruelty to Animals (NSPCA) (Centre for Environmental Rights and Endangered Wildlife Trust 2019), only one EMI inspection report indicated joint inspections to address welfare issues. Where compliance and welfare issues were noted in EMI inspection reports, it was unclear if and what consequences were imposed on facility owners. For example, one official stated in electronic communication that "enforcement actions are taken", although it remained unclear what such actions would likely entail, despite repeated, long-term welfare and compliance offences that were noted in their inspection reports for that particular facility. The lack of capacity, mandate, and animal welfare training hampers the EMI's ability to effectively enforce welfare regulations. The NSPCA is mandated with the enforcement of animal protection in South Africa, despite the absence of financial support from the national government, capacity constraints for both NSPCA and provincial departments to adequately address animal welfare. Hence, well-being issues remain a major concern and leave the protection of thousands of captive wild animals vulnerable.

Capacity and compliance issues

The lack of capacity of provincial nature conservation authorities (Williams et al. 2015) can severely impede their ability to fulfil their mandate as the issuing and enforcement authority for captive wildlife, thereby hindering adherence to relevant regulations. This deficiency also needs to be interrogated in relation to the (re-)issuing of TOPS permits in a timely manner and may be a contributing factor for the large number of facilities that traded with expired TOPS captivity permits between 2017–2020, in particular in the Free State and Limpopo provinces. An audit of captive lion breeding facilities in 2016–2017 conducted by DFFE (then Department of Environmental Affairs) and the provincial EMIs found nearly 40% of the facilities inspected to be non-compliant with either TOPS Regulations and/or permit conditions. In the Free State almost all facilities were found to be operating with expired permits, which were renewed without repercussions (Department of Environmental Affairs 2019; Parliamentary Monitoring Group 2019; Williams and 't Sas-Rolfes 2019). Previous studies identified 30 unique TOPS registered breeding and/or hunting facilities in Limpopo (Williams and 't Sas-Rolfes 2019), of which only 47% were issued with a valid permit during our research period. Similarly, of the 161 known TOPS facilities in the Free State (Williams and 't Sas-Rolfes 2019), between 38 facilities (23.6%) in 2019 and 102 facilities (63.4%) in 2017 would have been trading with expired permits during our research period. These findings cast further doubt on the accuracy of the estimated size of the industry of 275 facilities (according to our research), which can easily exceed 300 facilities. This

further illustrates the impact of the lack of capacity of provincial authorities and their subsequent inability to conduct reliable regulation compliance and enforcement in the absence of consequences.

Deficiencies, inconsistencies, inaccuracies, and irregularities pertaining to the regulation of the industry were experienced partly due to the fact that most provinces still work with dated paper-based record keeping systems (except for the North West and Western Cape) and some provinces issue permits at a district rather than provincial level (e.g., Eastern Cape and KwaZulu-Natal), which is further compounded by the lack of a centralised national database. The HLP also identified several challenges in terms of the current permitting system, including the outdated paper-based nature, which is not only slow, reactive, and flawed for monitoring compliance, but is also incapable of facilitating robust and transparent decision-making (High-Level Panel Report 2020). In addition, the many different authorities involved in regulating captive wild animals in South Africa (referred to as 9+1 or 9 provinces plus 1 national DFFE) and the lack of consistency in permitting due to the 9+1 situation further inhibits the system (High-Level Panel Report 2020). This makes the tracking and monitoring of types, quantities, and movement of captive wild animals through the system an onerous and often impossible task.

Limitations

Our research results outlined above can only reflect the permit information and records received from provincial officials in response to our PAIA requests and may include incomplete datasets. Furthermore, it is important to note that the issuance of a permit does not guarantee the activity was completed or permit conditions adhered to by the applicant. This does raise further uncertainty around the true extent of the commercial captive predator industry in South Africa, which is subject to a lack of regulation and compliance.

Conclusions

Our research illustrates the highly convoluted nature of the existing permit system relating to the commercial captive predator industry across South Africa's nine provinces. The lack of registration of birth and death as well as the absence of a centralised database have resulted in an inability to track captive-bred large felids through the system from birth to death and their eventual trade, whether live, as skeletons, or as hunting trophies (Heinrich et al. 2022). It also raises concerns regarding a lack of compliance and the implications this has for animal welfare, conservation of wildlife, and both the legal and illegal wildlife trade.

Although improved governance and strengthened regulations to impede opportunities for illegal activities are often used as arguments in support of legal trade, the

divergent provincial legislation, the lack of standard operating procedures, and inconsistencies in permit conditions across South Africa have been identified as major concerns in preventing the industry from being properly regulated and addressing the necessary challenges in animal welfare (Williams et al. 2015; Centre for Environmental Rights and Endangered Wildlife Trust 2018, 2019; High-Level Panel Report 2020). Our study demonstrates that the industry lacks transparency and operates in a deficient regulatory system that lacks enforcement and does not allow for checks and balances at provincial level, let alone on national level, which can lead to further exploitation of wildlife and continued unregulated growth of this industry.

The right of people to access information is vitally important when promoting transparency and empowering the people of South Africa (South African Human Rights Commission 2020), and yet our study highlights major inefficiencies within the PAIA process. Furthermore, our research emphasises the overall lack of resources at a provincial level necessary to carry out their fundamental mandates as nature conservation and permit issuing authorities, such as record keeping, the timely issuance of permits, inspections, and adherence to national and provincial legislation. It is important to note that this lack of capacity would no doubt hinder the effective implementation of a national centralised permitting database, if this were to be realised.

In the absence of a fully regulated and controlled industry with adequate national norms and standards on animal welfare and well-being, our research strongly corroborates the intended transition away from commercial captive predator breeding in South Africa, as was recommended by the HLP and adopted in the draft Policy Position (High-Level Panel Report 2020; Department of Forestry, Fisheries and the Environment 2021). The data presented here depicts the extent of the industry between 2017 and 2020, and highlights potential management issues that require both attention and resources to ensure a responsible and successful transition away from the current situation, with the lack of provincial capacity being the main concern.

A gap analysis (e.g., Kim and Ji 2018) focused on the commercial captive lion industry in South Africa was recently conducted by Green et al. (2021) to identify desired management states and specific steps that could facilitate a successful and responsible phase out of lion farming with the main intention to avoid any unintended human and/or animal suffering. Building on the recommendations identified during the application of this management tool, we hope the key background information compiled in this study can also be utilised by key stakeholders (e.g., Ministerial Task Team) to achieve this aim in the phase out process.

Acknowledgements

We would like to thank Dr Paul Giess for providing helpful comments and feedback on an earlier version of this manuscript.

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Appendix I

List of abbreviations and acronyms:

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CoP17	2016 CITES Conference of the Parties
DALRRD	Department of Agriculture, Land Reform and Rural Development
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
DENC	Department of Environment and Nature Conservation (Northern Cape)
DESTEA	Department of Small Business Development, Tourism and Environmental Affairs (Free State)
DFFE	Department of Forestry, Fisheries and the Environment
EMI	Environmental Management Inspectorate
GDARD	Gauteng Department of Agriculture and Rural Development
HLP	High-Level Panel
KZN	KwaZulu-Natal
LEDET	Limpopo Department of Economic Development, Environment and Tourism

MTPA	Mpumalanga Tourism and Parks Agency
NEMBA	National Environmental Management: Biodiversity Act, 10 of 2004
NSPCA	National Council of Societies for the Prevention of Cruelty to Animals
PAIA	Promotion of Access to Information Act, 2 of 2000
PHMP	Prohibited Hunting Method Permits
READ	North West Department of Rural, Environmental and Agricultural Development
SAHRC	South African Human Rights Commission
SAPS	South African Police Service
TOPS	Threatened or Protected Species Regulations, 2007
ZAR	South African Rand

Appendix 2

Table A1. Summary of the provincial nature conservation and biodiversity legislation, and provincial and regional issuing authorities in each of South Africa's nine provinces.

PROVINCE	TOPS compliance	Relevant Provincial Nature Conservation and Biodiversity Ordinances	Provincial Issuing authority	Regional issuing authority
Eastern Cape	Yes	Cape Problem Animal Control Ordinance, 26 of 1965; Eastern Cape Nature Conservation Ordinance, 19 of 1974; Nature Conservation Regulations 955 of 1975; Ciskei Nature Conservation Act, 10 of 1987; Transkei Decree 9 of 1992.	Eastern Cape Department of Economic Development, Environmental Affairs and Tourism	Regions (6): Amatole, Cacadu, O.R Tambo, Alfred Nzo, Chris Hani,Joe Gqabi
Free State	Yes	Free State Nature Conservation Ordinance, 8 of 1969; Qua Qua Nature Conservation, 5 of 1976; Nature Conservation Regulations 1983	Free State Department of Small Business Development, Tourism and Environmental Affairs (DESTEA) and Free State Permit Evaluation Committee (PEC)	Provincial only
Gauteng	Yes	Gauteng Nature Conservation Ordinance, 1983 (2005 amendment); Gauteng Nature Conservation Act - draft, 2012	Gauteng Department of Agriculture and Rural Development (GDARD)	Provincial only
KwaZulu-Natal	Yes	KwaZulu Nature Conservation Act, 29 of 1992; KwaZulu-Natal Nature Conservation Management Act, 9 of 1997; Natal Nature Conservation Ordinance, 15 of 1974; KwaZulu Nature Conservation Act, 8 of 1975; KwaZulu-Natal Environmental, Biodiversity and Protected Areas Management Bill, 2014	Ezemvelo KZN Wildlife	Districts (10): Amajuba, llembe, Sisonke, Ugu, uMkhanyakude, uMgungundlovu, uMzinyathi, Uthukela, Uthungulu, Zululand
Limpopo	Yes	Limpopo Nature Conservation Ordinance, 1983; Limpopo Environmental Management Act, 2003; Gazankulu Nature Conservation Act, 5 of 1975; Venda Nature Conservation Act, 10 of 1973	Limpopo Department of Economic Development, Environment and Tourism (LEDET)	Districts (5): Capricorn, Greater Sekhukhune, Mopani, Waterberg, Vhembe
Mpumalanga	No	Mpumalanga Ordinance, 1983- Mpumalanga Nature Conservation Act, 10 of 1998; Mpumalanga Nature Conservation Act Regulations 1999; Mpumalanga Nature Conservation Policy 2004.	Mpumalanga Tourism and Parks Agency (MTPA)	Provincial only

PROVINCE	TOPS compliance	Relevant Provincial Nature Conservation and Biodiversity Ordinances	Provincial Issuing authority	Regional issuing authority
North West	Yes	Cape Problem Animal Control Ordinance, 26 of 1957; Cape Nature Environmental Conservation Ordinance, 19 of 1974; Fencing Specification for the North West Province; North West Nature Conservation Ordinance, 1983; Bophuthatswana Nature Conservation Act, 1973; Lebowa Nature Conservation Act, 1973, and tribal rule	North West Department of Rural, Environmental and Agricultural Development (READ) Online permit system https://nw.nipas.co.za	Regions (4): Eastern (Bojanala Platinum district). Southern (Dr Kenneth Kuanda district -Vredefort Dome/Potchefstroom and Wolmaranstad), Vryburg (Dr Segomotso Ruth Mompati district). Central (Ngaka Modiri Molema district)
Northern Cape	Yes	Northern Cape Nature Conservation Ordinance, 19 of 1974; Nature and Environmental Conservation Regulations, 955 of 1975; Policy on Wildlife Management Fauna III; Northern Cape Nature Conservation Act, 2009; 2016	Northern Cape Department of Environment and Nature Conservation (DENC)	Regions (6): Springbok, De Aar, Kuruman, Upington, Calvinia, Mier
Western Cape	No	Western Cape Nature Conservation Ordinance, 19 of 1974; Western Cape Nature Conservation Regulations 955 of 1975; Western Cape Nature Conservation Board Act, 15 of 1998; Western Cape Nature Conservation Laws Amendment Act, 3 of 2000; Western Cape Biodiversity Bill 2019; Fencing and Enclosure of Game and Predators in the Western Cape Province (Fencing Policy); Game Translocation and Utilisation Policy for the Western Cape	CapeNature	Provincial only

Appendix 3

Table A2. Summary of provincial regulations, norms, and standards guiding the keeping, breeding, killing, and hunting of captive large felids across South Africa's nine provinces.

PROVINCES	Breeding permits & plans	Hybrids & exotic species	Birth & death registration	Euthanasia	Enclosure size per lion	Hunting
Eastern Cape	- Required but unspecified	- Introduction of exotic species discouraged	- Required but unspecified	- Permit required but unspedfied	No prescribed size	- Permit required - Minimum release time 6 months
Free State	- Certificate of registration and studbook required	- Hybridisation must be prevented	- Changes in numbers due to breeding or death to be reported within 5 days	- Permit required - Must be carried out by veterinarian and monitored by DESTEA official	1 km^2	- Permit required - Minimum release time 30 days - Official needs to be present at release - Breeding and hunting cannot take place at same property - Specifics of hunt must be reported within 21 days
Gauteng	- Breeding programme and studbook must be provided - Offsite breeding requires zoo permit	- Inbreeding must be prevented (no mention of intentional hybridisation)	- Hard copy records required	- Permit required but unspedfied	120 m^2	- Permit and landowner permission required

PROVINCES	Breeding permits & plans	Hybrids & exotic species	Birth & death registration	Euthanasia	Enclosure size per lion	Hunting
KwaZulu-Natal	- Breeding of big cats and removal of cubs not permitted - Breeding plan, registration and TOPS permit required	- Hybridisation must be prevented and measures stipulated in breeding plan	- Conservation officer must be informed of death and disposal within 24 hours	- Permit required but unspedfied - Conservation officer notified of mortality * - Veterinarian report required *	625 m^2	- Permit required
Limpopo	- Permits required - Breeding prohibited unless given specific		- Records kept by facilities	- Permit required	No prescribed size	- Permit required - Minimum release time 24 months
Mpumalanga	- Permits required	- 1 mportation or release of exotic species is prohibited		- No euthanasia allowed - Deaths must be reported *	No prescribed size	- Permit and landowner permission required
North West	- Registration certificate required for breeding, trading and translocating	- No hybrid may leave province alive or be imported into province	- Euthanasia prohibited	- Prohibited	1,500 m^2	- Permit required - Minimum release time 96 hours - No permit required to hunt exotic species, only landowner permission
Northern Cape	- Permits required for zoos, circuses and research purposes - No captive breeding or keeping in province	- No captive breeding or keeping permitted			No prescribed size	- Permit required for wild, self-sustaining and free- range lions - Hunting of captive-bred or tame lions is prohibited
Western Cape	- Only keeping permits issued, breeding is prohibited	- Hybridisation must be prevented	- None required *	- No permit required *	500 m^2	- Permit required for all 'Prohibited Hunting Methods'

* Personal communication.

Appendix 4

Promotion of access to information act methodology: Procedure and results

Introduction

According to the Promotion of Access to Information Act, 2 of 2000 (PAIA), any citizen requesting information may do so without demonstrating a reason and may expect a response within 30 days (Ngoepe 2008); however, the response time experienced in practice is often much longer. Reportedly, approximately 40% of requests for information are ignored by officials (The Archival Platform 2015) for a variety of reasons, including a lack of capacity and poor record keeping, without which access to information cannot be realised to its full potential (Darch and Underwood 2005; Ngoepe 2008; Nkwe and Ngoepe 2021). These shortcomings in implementation significantly hinder the public's participation in activities of national interest (McKinley 2003; Marais et al. 2017).

Aims

The PAIA process was utilised to gain access to records kept by the various provincial departments governing environmental matters, to obtain insights into the extent and nature of the industry, as well as into the efficiency and compliance of the regulatory administration at provincial level.

Methods

An initial web-based search was conducted to identify the nine provincial issuing authorities and their respective PAIA manuals for the contact details of the relevant information officers. Subsequently, all eight PAIA requests were sent via email to the information officers. If contact details appeared to be incorrect, the correct information was sourced and the PAIA requests were re-sent via email. Where appropriate (i.e., no response after 90 days), internal appeals were submitted using PAIA Form B (to appeal a decision made by a public body) (South African Human Rights Commission 2020). Detailed records were kept of emails sent, responses received, and the frequency of contact to create a timeline of responses according to the official PAIA process as set out in the South African Human Rights Commission (SAHRC) Guide (Table A).

The Western Cape was the only province to complete the PAIA process in less than 30 days with no permutations. Three provinces (Free State, KwaZulu-Natal, and Northern Cape) completed the process in less than 120 days with various official permutations. The remaining five provinces took more than the maximum 180 days to present a final outcome to the PAIA requests. Three of these provinces, namely Limpopo, Mpumalanga, and North West, took more than 300 days to present a final outcome without following due process, i.e. they did not officially transfer the request or request an extension. Mpumalanga took more than one year (392 days) to present a final outcome to the PAIA requests.

Results

A number of reasons to refuse a PAIA request exist based on either discretionary or mandatory grounds, and third-party personal information should not be disclosed (South African Human Rights Commission 2020). The latter was the most common reason for the refusal of our PAIA requests, despite the fact that third-party information can be redacted.

The Eastern Cape was the only province to provide a partial response, sending through information for only one of the six regions, while stating by email that the PAIA request had been addressed in full. Hence, the Eastern Cape PAIA request process is considered to be ongoing.

A total of 72 PAIA requests were submitted to the nine provinces in South Africa. The SAHRC Guide (2020) prescribes a timeline of between 30 and 180 days within which a PAIA request should reach completion, although there are a number of permutations from the standard response process that should be noted (Table A) and legally allows for additional response time.

Officials from five provinces transferred the requests upon receipt, due to outdated contact information provided online. For two provinces (Eastern Cape and Northern Cape), it took 64 and 156 days respectively to obtain the correct contact details and receive acknowledgement of the PAIA requests sent.

Following a minimum of 90 days of no response after the first PAIA requests, and refusal was presumed, internal appeals were lodged with four provinces, namely Gauteng, Limpopo, Mpumalanga, and North West. Only Gauteng responded to the internal appeal within the prescribed 30-day period, whereas the remaining three provinces exceeded this period by up to 60 days (Table A). Following their initial response to the internal appeal, Mpumalanga took a further 266 days to present a final outcome to the request.

Table A3. Summary of the legal PAIA process and timeline to be followed, according to the Promotion of Access to Information Act and the South African Human Rights Commission Guide compared to our experiences during the research period.

PROVINCES:	Request sent	PERMUTATIONS:					No Response after 30 days	Internal Appeal Lodged	Internal Appeal Decision	Outcome of Request	Days Lapsed
		Transfer	Outcome after Transfer	Extension request	Days requested	Response after Extension					
	X	X + 14 days	X + 14 + 30 days	X + 30 days		X + 30 + 30 days	Y	Y + 60 days	Y + 60 + 30 days		
Eastern Cape	29 Jun 20	07 Jul 20	07 Sep 20	07 Sep 20	10 working days	15 Sep 20				26 Jan 21	211
Free State	18 Jun 20	22 Jun 20	29 Jun 20	07 Sep 20	5 working days	11 Sep 20				17 Sep 20	91
Gauteng	19 Jun 20	01 Jul 20	02 Jul 20	22 Sep 20	30 days	03 Nov 20	Yes	27 Jan 21	28 Jan 21	02 Feb 21	228
KZN	15 Sep 20	09 Nov 20	23 Nov 20							15 Dec 20	91
Limpopo	17 Jun 20						Yes	14 Dec 20	12 Feb 21	14 Apr 21	301
Mpumalanga	15 Sep 20						Yes	15 Dec 20	19 Jan 21	12 Oct 21	392
North West	25 Sep 20						Yes	26 Feb 21	29 Mar 21	07 Sep 21	347
Northern Cape	12 Feb 21	15 Feb 21	26 Feb 21	28 Apr 21	Not specified	26 May 21				26 May 21	103
Western Cape	29 Jun 20									21 Jul 20	22

Appendix 5

Summaries of permit information received from each of the nine provincial nature conservation authorities in South Africa in response to our eight PAIA requests sent.

Table A4. Summary of permit information received from Eastern Cape Department of Economic Development, Environmental Affairs and Tourism. Incomplete information received for PAIA requests 1 and 5, for the Amathole region only.

PROVINCE	YEAR	PERMIT TYPES					
		CAPTIVITY			EUTHANASIA		
		No. of permits issued	No. of facilities with valid permits	No. of permitted felids	No. of permits	No. of facilities	No. of lions
Eastern Cape	2017–2020	No information provided	4	43 lions, 1 tiger, 1 other felid	1	1	2
	Totals		**4**		**1**	**1**	**2**
	Notes	Only Amathole region, no permits issued by other regions in the province			Euthanised for veterinary reasons		

Table A5. Summary of permit information received from Free State Department of Small Business Development, Tourism and Environmental Affairs. Information received for PAIA requests 1, 2, 4, 5 and 8 and incomplete information for request 3. PAIA request 7 is summarised in-text.

PROVINCE	YEAR	PERMIT TYPES								
		CAPTIVITY			TRANSPORT			CAPTIVE HUNTING		
		No. of permits issued	No. of facilities with valid permits	No. of permitted felids	Intraprovincial	Interprovincial-import	Interprovincial-export	No. of permits	No. of facilities	No. of Dons
Free State	2017	59	59	1,281 lions, 17 cheetahs, 41 tgers, 97 other felids	No information provided			5	1	7 lions
	2018	121	102	3,014 lions, 146 cheetahs, 157 leopards, 251 tigers, 525 other felids	28 permits for 95 lions, 14 cheetahs, 3 tigers	19 permits for 103 lions, 1 cheetah, 13 tigers, 7 other felids	3 permits for 19 lions, 1 other felid	1	1	1 lion
	2019	155	123	3,177 lions, 147 cheetahs, 71 leopards, 141 tigers, 697 other felids	37 permits for 160 lions, 19 cheetahs, 4 leopards, 15 other felids	23 permits for 58 lions, 8 cheetahs, 2 leopards, 7 tigers, 4 other felids	18 permits for 42 lions, 3 tigers, 6 other felids	8	1	9 lions
	2020	82	71	1,873 lions, 133 cheetahs, 69 leopards, 118 tigers, 530 other felids	30 permits for 227 lions, 26 cheetahs, 9 leopards	18 permits for 21 lions, 2 cheetahs, 1 leopard, 15 tigers, 17 other felids	57 permits for 144 lions, 34 cheetahs, 2 leopards, 3 tigers, 14 other felids	4	2	7 lions
	Totals	**417**			**95**	**60**	**78**	**18**		**24**
	Notes	65 permits did not list microchip numbers and 2 permits did not specify the species or quantities.			Total of 233 permits for 869 lions and 230 other felids			2 unique facilities		
	Year	**EUTHANASIA**			**CITES EXPORTS**					
		No. of permits	**No. of facilities**	**No. of lions**	**No. of permits**	**No. of Live export permits**	**No. of feids**			
	2017	42	25	662	20	0	20 lions, 1 leopard, 1 other felid			
	2018	10	9	203	44	8	346 lions, 1 leopard			
	2019	8	8	117	95	24	255 lions, 22 cheetahs, 5 leopards, 12 tigers, 9 other felids			
	2020	6	6	105	55	4	67 lions, 3 leopards, 3 other felids			
	Totals	**66**		**1087**	**214**	**36**				
	Notes	33 unique facilities; 235 (21.6%) of total lions euthanised by 1 facility			Total of 214 Export permits for 688 lions and 57 other felids. Total of 36 Live export permits for 114 lions and 39 other felids					

Table A6. Permit table summarising the information provided by Gauteng Department of Agriculture and Rural Development. Information received for PAIA requests 3 and 8 and incomplete information for requests 1, 2 and 5.

PROVINCE	YEAR	PERMIT TYPES					
		CAPTIVITY			TRANSPORT		
		No. of permits issued	No. of facilities with valid permits	No. of permitted felids	Intraprovincial	Inter provincial - import	Inter provincial - export
Gauteng	2017	10	8	at least 47 lions, 9 cheetahs, 12 leopards, 2 tigers †	5 permits for 8 lions, 2 leopards	16 permits for 16 lions, 10 cheetahs, 6 other felids	10 permits for 13 lions, 6 cheetahs, 6 other felids
	2018	4	6	at least 6 lions, 1 cheetah, leopards and other felids †	2 permits for 8 lions	17 permits for 37 lions, 7 cheetahs, 3 leopards, 8 other felids	13 permits for 29 lions, 9 cheetahs, 10 other felids
	2019	6	6	No quantities provided	3 permits for 15 lions, 1 cheetah	13 permits for 3 lions, 27 cheetahs, 6 leopards	10 permits for 4 lions, 6 cheetahs, 1 leopard
	2020	1	5	No quantities provided	2 permits for various felids (no quantities provided)	6 permits for 14 lions, at least 3 cheetahs, 3 leopards, other felids †	3 permits for 5 lions, 2 cheetahs
	Totals	**21**			**12**	**52**	**36**
	Notes	Registration, and establish & operate permits (3-year validity), keeping, keeping & breeding, and keeping & circus display permits (1-year validity).			Total of 100 permits for 152 lions and at least 116 other felids. Transport permits in Gauteng include many for release, veterinarian and display purposes.		
	Year	**EUTHANASIA**			**CITES EXPORTS**		
		No. of permits	**No. of facilities**	**No. of lions**	**No. of permits**	**No. of Live export permits**	**No. of felids**
	2017	2	1	3	34	2	53 lions,2 leopards, 3 tigers, 5 other felids
	2018				85	15	119 lions, 7 cheetahs, 3 leopards, 1 tiger, 15 other felids
	2019	No further euthanasia permits issued/ provided			120	11	222 lions, 2 cheetahs, 4 leopards, 3 other felids
	2020				36	5	42 lions, 1 leopard, 6 other felids
	Totals	**2**	**1**	**3**	**275**	**33**	
	Notes				Total of 275 Export permits for 436 lions and 53 other felids. Total of 33 Live export permits for 74 lions and 36 other felids		

† some permits did not specify quantities of large felids involved.

Table A7. Permit table summarising the information provided by Ezemvelo KZN Wildlife. Incomplete information received for PAIA requests 1 and 2. PAIA request 7 is summarised in-text.

PROVINCE	YEAR	PERMIT TYPES		
		CAPTIVITY		
		No. of permits issued	No. of facilities with valid permits	No. of permitted felids
KwaZulu-Natal	2018	3	3	31 lions, 7 cheetahs, 5 leopards, 15 tigers, 1 liger
	Totals	**3**	**3**	
	Notes	No information for 2017, 2019 or 2020 was provided		

Table A8. Permit table summarising the information provided by Limpopo Department of Economic Development, Environment and Tourism. Incomplete information received for PAIA requests 1, 2, 3, 4 and 8.

PROVINCE	YEAR	PERMIT TYPES					
		CAPTIVITY			TRANSPORT		
		No. of permits issued	**No. of facilities with valid permits**	**No. of permitted felids**	**Intra provincial**	**Inter provincial - import**	**Interprovincial - export**
Limpopo	2017		16		27		9
	2018	No information	16	No information	33	No information	28
	2019	provided	14	provided	48	provided	43
	2020		14		30		6
	Totals		60		138		86
	Notes	No information provided on species			A total of 224 transport permits. No information provided on species.		
	Year	**CAPTIVE HUNTING**			**CITES EXPORTS**		
		No. of permits	**No. of facilities**	**No. of lions**	**No. of permits**	**No. of Live export permits**	**No. of felids**
	2017	34			1243		
	2018	44	No information provided		1453	No information provided	
	2019	39			1695		
	2020	10			1353		
	Totals	**127**			**5744**		
	Notes	No information provided on species nor number of facilities			No information provided on species		

Table A9. Permit table summarising the information provided by Mpumalanga Tourism and Parks Agency. Information received for PAIA requests 1 and 2. PAIA request 7 is summarised in-text.

PROVINCE	YEAR	PERMIT TYPES		
		CAPTIVITY		
		No. of permits issued	**No. of facilities with valid permits**	**No. of permitted felids**
Mpumalanga	2017	0	3	35 lions, 4 cheetahs, 17 leopards, 10 tigers, 38 other felids
	2018	1	4	
	2019	1	5	
	2020	1	3	
	Totals	**3**		
	Notes	6 unique facilities. More facilities can legally operate with valid permits compared to the number of new permits issued in that year as MTPA captivity permits are valid for 3 years.		

Table A10. Permit table summarising the information provided by North West Department of Rural, Environmental and Agricultural Development. Information received for PAIA requests 1, 2 and 3 and incomplete information for requests 4 and 5.

PROVINCE	YEAR	PERMIT TYPES					
		CAPTIVITY			TRANSPORT		
		No. of permits issued	No. of facilities with valid permits	No. of permitted felids	Intra provincial	Interprovincial - import	Interprovincial - export
North West	2017	36	77	1,860 lions, 176 cheetahs, 65 leopards, 139 tigers, 16 other felids	162 permits for 162 lions	128 permits for 128 lions	15 permits for 15 lions
	2018	47	83	1,900 lions, 187 cheetahs, 68 leopards, 152 tigers, 16 other felids	50 permits for 45 lions, 2 cheetahs, 1 leopard, 2 tigers	55 permits for 45 lions, 4 cheetahs, 4 leopards, 2 tigers, 2 other felids	16 permits for 12 lions, 2 cheetahs, 2 other felids
	2019	50	88	2,032 lions, 213 cheetahs, 76 leopards, 175 tigers, 15 other felids	51 permits for 44 lions, 1 cheetah, 4 tigers, 2 other felids	57 permits for 46 lions, 3 cheetahs, 2 leopards, 3 tigers, 3 other felids	20 permits for 15 lions, 2 cheetahs, 1 leopards, 2 other felids
	2020	41	90	2,059 lions, 230 cheetahs, 82 leopards, 195 tigers, 14 other felids	25 permits for 20 lions, 1 leopard, 2 tigers, 2 other felids	23 permits for 18 lions, 4 cheetahs, 1 tiger	7 permits for 2 lions, 1 cheetah, 4 tigers
	Totals	**174**			**288**	**263**	**58**
	Notes				Total of 609 permits for 552 lions and 59 other felids		
	Year	**CAPTIVE HUNTING**			**CITES EXPORTS**		
		No. of permits	**No. of facilities**	**No. of lions**	**No. of permits**	**No. of Live export permits**	**No. of felids**
	2017	414	No information provided	414 lions	"No record"	No information provided	
	2018	369		369 lions	17		
	2019	531		531 lions	28		
	2020	230		230 lions	6		
	Totals	**1544**		**1544**	**51**		
	Notes	Total of 1,544 permits for 1,544 lions			No information provided on species		

Table A11. Permit table summarising the information provided by Northern Cape Department of Environment and Nature Conservation. Information received for PAIA request 2 and incomplete information received for PAIA requests 1 and 8.

PROVINCE	YEAR	PERMIT TYPES					
		CAPTIVITY			CITES EXPORTS		
		No. of permits issued	No. of facilities with valid permits	No. of permitted felids	No. of permits	No. of Live export permits	No. of felids
Northern Cape	2017	1	No information provided		No information provided		
	2018				17		19 lions, 1 other felid (caracal)
	2019				No information provided		
	2020				8		11 lions
	Totals	**1**			**25**		
	Notes	No captive big cats in province, only 1 rehabilitation facility. All big cats are therefore wild, self-sustaining and free-range.			Total of 25 Export permits for 30 lions and 1 other felid. All exporters were taxidermists.		

Table A12. Permit table summarising the information provided by Western Cape CapeNature. Information received for PAIA requests 1, 2 and 3 and incomplete information for requests 4 and 8.

PROVINCE	YEAR	PERMIT TYPES					
		CAPTIVITY			TRANSPORT		
		No. of permits issued	**No. of facilities with valid permits**	**No. of permitted felids**	**Intra provincial**	**Interprovincial - import**	**Interprovincial - export**
Western Cape	2017	6			1 permit for cheetah	2 permits for lion, 4 permits for cheetah	1 perm it for cheetah
	2018	35	26	116 lions, 99 cheetahs, 11 leopards, 18 tigers, 53 other felids	2 permits for lion, 10 permits for cheetah	3 permits for lion, 8 permits for cheetah, 2 permits for leopard, 1 permit for tiger (carcass)	3 permits for lion, 6 permits for cheetah
	2019	41			2 permits for lion, 3 permits for cheetah	9 permits for lion, 10 permits for cheetah, 4 permits for leopard, 2 permits for tiger	5 permits for lion, 14 permits for cheetah,2 permits for tiger
	2020 *	21			2 permits for lion, 2 permits for cheetah, 1 perm it for tiger	1 permit for lion, 4 permits for cheetah	5 permits for cheetah
	Totals	**103**			**23**	**SO**	**36**
	Notes	Total of 103 permits for 116 lions and 181 other felids. No breeding permits issued in province, only keeping			Total of 109 permits. Quantities of felids on each permit not provided		
	YEAR	**CAPTIVE HUNTING**			**CITES EXPORTS**		
		No. of permits	**No. of facilities**	**No. of lions**	**No. of permits**	**No. of Live export permits**	**No. of felids**
	2017	No information provided			47	0	7 lions, 1 tiger, 90 other felids
	2018	10	No information provid ed	1 lion, 5 cheetahs, 4 leopards	57	0	33 lions, 3 leopards, 86 other felids
	2019	6	No information provided	3 lions, 3 leopards	18	1	172 lions, 2 cheetahs (live), 1 leopard
	2020 *	2	No information provided	2 leopards	No information provided		
	Totals	**18**			**122**	**1**	
	Notes	All permits issued are Prohibited Hunting Method permits that includes for purpose of capture. No trophy hunting permits issued.			Total of 122 Export permits for 212 lions and 183 other felids. 1 Live permit for 2 cheetahs.		

* Up to July 2020.

Appendix 6

Examples of Environmental Management Inspectorate (EMI) reports from the Free State province, South Africa.

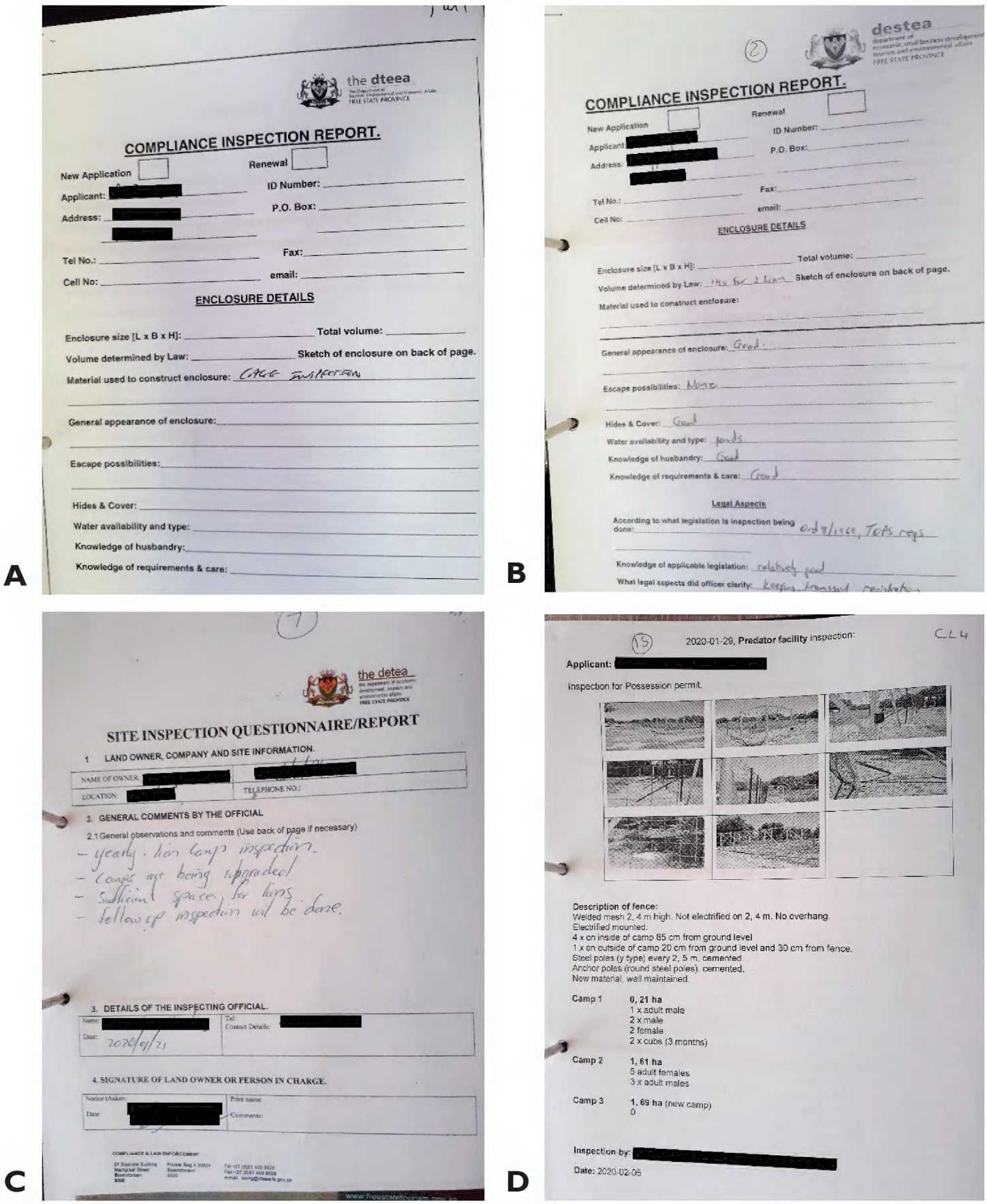

Figure A1. A Compliance inspection report (category 1) omitting almost all required information **B** second version of a compliance inspection report (category 1) **C** site inspection questionnaire report (category 2) reports with an intermediate level of detail **D** generic feedback report (category 3) with comprehensive descriptions, enclosure maps/layouts, and photographs.